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Breaking Ground

(in Northeastern Ontario) **WINTER 2007**

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

BIG CHANGES FOR AGRICULTURAL TRADE SHOW

After 40 years at the same venue, there are significant changes in store for the North Eastern Ontario Soil & Crop Improvement Association's (NEOSCIA) "Agricultural Conference & Trade Show". Due to a change in mandate at the New Liskeard Agricultural Research Station, they will be unable to host this event. This has resulted in the movement of the show to a new location on a different weekend.

The new site is the Earlton Recreation Center (Arena). The show will be held on Friday, April 13, from 10 am to 9 pm. The Saturday hours will be 9 am to 4 pm, with an early morning "Pancake Breakfast" running from 7 am to 10 am (upstairs). The timing is designed to match with the "Power Pac" bull & heifer sale.

The change in venue to Earlton is seen as being significant because Earlton will be the home of the International Plowing Match in September of 2009.

The trade show event is unchanged in format, but the conference section has been revamped for this year. There will be no conference speakers at this show (due to low farmer turnout in past years). However, there will be two demonstrations held each day on the main floor of the trade area, while upstairs there will be farm oriented educational videos that will run throughout Saturday.

The "Forage & Seed Show" will also be revamped with significant material goods being offered for prizes, rather than the traditional "plaques". ALL exhibitors will receive a gift from NEOSCIA just for entering. Remember, this event is open to everyone that holds a 2007 OSCIA membership (which can be purchased at the door).

Remember, younger children are more than welcome, with a special play area on the top floor that will operate between 6 pm & 9 pm on Friday evening. Women will also enjoy our "lifestyle" exhibits that will run throughout the show.



2006 NEOSCIA Forage, Seed, and Potato Show

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.

Send articles to:
Graham Gambles
Box 586, Temiskaming
Shores, ON P0J 1K0
Tel: (705) 672-3105
Fax: (705) 672-5959
E-Mail: gamblesgraham@yahoo.ca

Canada-Ontario Environmental Farm Plan

- protect soil and water resources
- enhance production returns
- show due diligence
- minimize environmental risk

Funding is now available through Federal and Provincial cost-share programs for beneficial management practices.

Contact the Ontario Soil and Crop Improvement Association

1-800-265-9751



Programme de planification environnementale à la ferme Canada-Ontario

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www.ontariosoilcrop.org

The Agricultural Policy Framework (APF) A Federal-Provincial-Territorial Initiative
Le Cadre stratégique pour l'agriculture (CSA) Une initiative fédérale-provinciale-territoriale

Environmental Farm Plan Representatives

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Muskoka:

Katya Riley: 705 764-1695

Manitoulin:

Mary Scott: 705 377-4928

Cochrane, Nipissing, Parry Sound, Sudbury and Temiskaming:

Clare Venne: 705 594-9194

Environmental Farm Plan Meeting Dates

Cochrane	Wed. April 4
Nipissing at Verner	Wed. April 17
Parry Sound at South River	Wed. April 11
Sudbury at Massey	Wed. April 12
Sudbury at Azilda	Wed. April 16
Temiskaming	Wed. April 5

BIODIESEL UPDATE

by Crystal Baresich

What Is Biodiesel?

Biodiesel (B100) is a renewable fuel for diesel engines derived from natural oils, like soybean or canola oil that meets certain specifications known as ASTM D 6751.

It can be used in any concentration with petroleum based diesel fuel in existing diesel engines with little or no modification. Biodiesel is not the same thing as raw vegetable oil. It is produced by a chemical process which removes the glycerin from the oil.

Biodiesel Blend is a blend of B100 with petroleum-based diesel fuel, designated BXX, where XX represents the volume percentage of biodiesel fuel in the blend. For

example, B20 is a blend where 20% by volume is biodiesel and 80% is petrodiesel.

What is Biodiesel Made From?

Biodiesel can be made from a variety of renewable sources such as vegetable oils (soybeans, canola or other crops), recycled cooking grease or animal fats. Each can produce a high quality B100 fuel, each with slightly different properties. Soybean oil is currently the most common source of biodiesel.

Why Should I Use Biodiesel?

Biodiesel is better for the environment because it is made from renewable resources

continued on page 4

Nipissing/Parry Sound/ Muskoka SCIA News

by Janet Parsons, Director

The West Nipissing Forage and Seed Fair and Conference was held on March 28th at the Verner arena. John Rowsell and Graham Gambles spoke about research results. Other topics included the future of commodity prices and growing spring wheat. There was an extensive seed and forage show with over \$700 worth of prizes awarded. Look for the winners in the next issue.

The Lake Nipissing Stewardship Council is in the initial stages of developing a tree planting program in West Nipissing. The West Nipissing Soil and Crop Improvement Association is acting as a liaison/communication vehicle for the project. Bill Hagborg of the Council says the objective of the project is to plant trees on private property along water courses in West Nipissing to reduce erosion and replace trees lost in the 2006 wind storm. The proposal will have an onsite visit to determine the best species of tree or shrub to plant. The Council hopes to provide the trees and planting free of charge using funding agencies and the Junior Ranger Program. The farmer would be responsible for site preparation and follow-up care of the trees as their share. There will be a water course site stop on our summer tour with Bill Hagborg explaining species selection, site preparation and other aspects of the proposed program. While the project is in its early stages, the Council needs to know the extent of interest as soon as possible. To date we have 6 farmers representing 25 acres. If interested, please contact Janet Parsons at parview@onlink.net or call 705-753-0730. The planting would start in 2008.

There are a number of research projects planned for the summer of 2007. In West Nipissing, the regional canola project will continue, this year focusing on the effects of adding sulphur. To enhance this project, a more detailed sulphur and nitrogen project has been applied for under the OSCIA Fertilizer BMP trials grant program. In Muskoka, the lime project will continue for its third year.

The Verner site of the University of Guelph research plots is changing location this year. The new site is just south of Verner on Hwy 64. Thanks to Dan Olivier for providing the site and to Gerald Beaudry for acting as a liaison for the project. White beans will be one of the featured crops this year. I'd like to thank Rene and Roger Leblanc for hosting the plots for the past 13 years.

Klaus Wand reported that at the Parry Sound Soil and Crop Improvement Association annual meeting it was agreed to include East Nipissing in their membership.

Good luck with your spring seeding.

Cattle Handling Facilities

Harold K. House, P.Eng., Dairy and Beef Housing and Equipment Engineer Ontario Ministry of Agriculture Food, and Rural Affairs

Any producer who is dealing with cattle needs some type of handling facilities whether he has ten steers or a thousand steers. Handling facilities are, and will continue to be an important part of a successful cattle operation, allowing the producer many advantages and options.

Handling facilities allow producers to make use of current and future technology available in the industry. From simple tagging to more complex health management practices a good handling facility gives the producer the choice of what to use and what not to.

With many beef operations being a part time enterprise, time and labour are often at a premium. Good facilities reduce the time and labour needed, and therefore reduce the costs. The labour force may also be happier and more willing to work in an efficient facility.

The safety and health of both the animals and the people working them need to be considered any time cattle are handled. Cattle often outweigh the operator by a considerable amount, and with four legs are much more stable and better balanced. Good facilities, with slip resistant flooring, will reduce stress levels, and help to prevent expensive bruising.

Many management procedures give better results if applied with a certain level of skill. This is much more likely to happen if the animal can be properly restrained. Producer satisfaction with a job done right is also a side benefit of a good handling facility.

Locate the facilities:

- a) close to the cattle to be worked (feedlot, barnyard, etc.).
- b) where there is good road access and turning room for livestock trucks.
- c) to blend in with future plans for the operation.

It may be desirable to consider portable handling facilities for some operations.

What is needed for a facility will vary depending on the operation. A number of things should be considered before making this decision, such as:

- The layout of present, and future buildings and yards
- The size, weight and numbers of cattle normally worked

- The extent of processing to be carried out
- The amount of labour available to help with processing

Once these have been decided on, the system itself breaks down into two sections; the basic components, or heart of the system and the optional components, or accessories.

THE BASIC COMPONENTS - consist of three major sections

1. The Crowding Pen funnels cattle into the working chute. A circular or angular pen helps to get the cattle facing the right way and entering the chute in single file. Solid sides and crowd gates help to avoid the cattle becoming distracted. It also makes the cattle see the chute as the only way out. Older facilities built with open sides can be easily improved by closing them in.
2. The Working Chute holds the cattle in single file ready to enter the headgate or squeeze. Ideally it should be long enough to line up and hold at least three animals. If the chute can be curved it will help to make moving the cattle even easier. Chutes must be narrow enough to prevent cattle from turning. A chute with sloping sides will allow different sizes of cattle to be worked and still prevent turning. Some simple procedures may be done right in the working chute.



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3. The Headgate is for restraining animals securely and safely during treatment. They range from manual models to self-catching and hydraulic models. They need to be quick, easy to operate and adjustable for different sizes of cattle.

THE OPTIONAL COMPONENTS - vary with each setup and producer's preferences and help to add efficiency and flexibility.

Holding Pens will allow for faster handling of cattle as they can be sorted and held prior to moving into the crowd pen. They also prevent the mixing of treated cattle back into the main herd.

The Squeeze gives greater control of the animal by holding it's sides. This serves to reduce the struggling and

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GRAND OPENING • Friday, April 27

of our New State of the Art Shop and Service Center with Parts, Showroom, Sales, Rentals and Contracting Division all from one location: Hwy. 11 just North of Earlton beside the Buffalo!



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BIODIESEL UPDATE

Continued from page 2

and has lower emissions when compared to petroleum diesel. When we use petroleum, 100% of the CO₂ released into the air is added to the net CO₂ air levels. When we use biodiesel however, the net CO₂ that is release into the air is reduced by up to 20% for B20 because it is reused by the next crop of soybeans, thus reducing the net CO₂ released into the air.

Biodiesel is less toxic than table salt and biodegrades as fast as sugar. Since it is made from renewable resources such as soybeans, its use decreases our dependence on foreign oil.

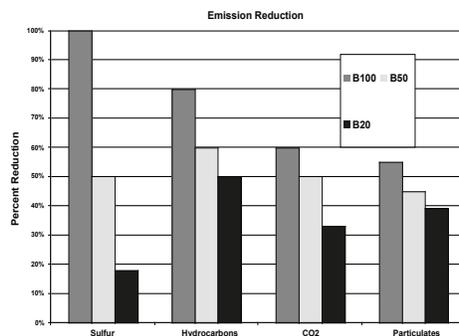
Biodiesel in its pure form is completely biodegradable and non-hazardous. In tests performed by the University of Idaho, biodiesel in a water solution was 95 percent degraded after 28 days. Diesel fuel was only 40 percent degraded. When biodiesel was blended with diesel fuel, the degradation rate of the petroleum fuel tripled.

Biodiesel is also non-flammable, can be stored at ambient temperatures and can replace or blend with petroleum diesel with little or no engine modification.

Biodiesel provides an opportunity for farmers to create demand for the crops that they grow. Farmers recognize that biodiesel is a high-quality product to use in their farm equipment. Even low blends of biodiesel like B2 or B5 offer exceptional lubricity, thus slowing engine wear and tear. B1 blends have been shown to

increase lubricity by up to 65% over traditional diesel.

Biodiesel is a cleaner fuel and friendlier for the environment. The chart below shows the percent reduction in emissions when compared to typical diesel, using various blends.



Energy Produced

One gallon of typical diesel No. 2 produces about 129,050 BTUs, whereas one gallon of B100 produces 118,170 BTUs, which is about 8% less energy. With B20 however, the difference in power and fuel economy should only be between 1% and 2% less and with lower blends, the differences in energy output become unnoticeable.

Uses of Biodiesel Today

With no modifications, a diesel engine can operate on biodiesel or blends of biodiesel in any ratio from 1-100%. It mixes readily at any blend level, making it very flexible. It can be blended with any kind of distillate or diesel fuel such as kerosene and heating oil for home heating. Since heating oil and dyed diesel can contain high levels of sulfur, blending can significantly reduce emissions.

The Portland Oregon Water Bureau recently began using a B99 blend in its fleet of 84 diesel powered vehicles in September of 2006. The Water Bureau has been using a B20 blend since August 2004. The vehicles that have been converted to B99 include backhoes, dump trucks, graders, excavators, water service trucks, welding and crane trucks, pick up trucks, compressors, forklifts, tractors, mowers, generators, work vans and some passenger vehicles. They have estimated the change to be almost cost neutral.

Their strategy is to use the B99 blend throughout the warmer months and B50

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during the colder months from November on. They have had no major issues since raising the blend last fall.

Biodiesel in Cold Weather

Extremely cold weather may affect the performance of high blends (over 5%), although a lack of data is readily available on blends over this amount in cold weather. Blends of 5% have been typically used in our area.

Solutions for winter with biodiesel are similar to that of #2 diesel including using heaters and storing vehicles in buildings when not in use.

Cost of Biodiesel

Currently you can expect to pay a premium to purchase biodiesel for your operation, depending on the blend selected. UPI offers three blends to consumers: B2, B5 and B10. The price premium per litre for each of the blends over the dyed diesel is 1, 2 ½ and 5 cents respectively.

Participation by OSCIA

The OSCIA has been participating in a one year study on biodiesel blends beginning in March of 2006. There are six Ontario cooperators participating in the study, including Maurice Beaudry of Cache Bay. Cooperators have been evaluating a B5 blend in farm equipment and are responsible for keeping track of fuel usage, work type, hours logged and temperature conditions, as well as any issues they have experienced. To date, the cooperators have seen no noticeable differences in the power of the equipment.

BioDIESEL

USED ON FARM - UTILISÉ À LA FERME

MAURICE BEAUDRY PROJECT CACHE BAY



Agriculture and Agri-Food Canada

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Northern Farmers Enrolling In Cass

In the past few months, a number of regional farmers (and their spouses) have taken the opportunity to acquire Federal funding to extend their education.

The program is open to farms that have an average GROSS income of over \$10,000 while the NET family income remains below \$45,000. There are special provisions for "Beginning Farmers".

Examples of current farmers enrolled in the program are as follows:

1. a young farmer returning for 2 years at Kemptville College;
2. a young farm wife returning to college to learn business skills such that she can take over from her "inlaws" in a dairy

farm succession venture;

3. an elderly farmer taking a workshop on beef management in western Canada;
4. a cash crop farmer getting his truck driving license;
5. a middle aged farmer who must leave the business due to health problems is taking a series of upgrading courses on the internet.

All these farm families were awarded between \$8000 & \$16000 (for EACH) of the farmer and spouse involved.

If you are interested, call the Canadian Agricultural Skills Service at:

Tel.: 1-877-830-0200 and register NOW.
(Program runs until March 31, 2008.)



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Cattle Handling Facilities

thus the stress on the animal. Many have gates and sections which swing out to give greater access to different parts of the animal.

Cutting Gates along the chute allow you to let an animal out of the main group. They can also be very useful if you every have an animal go down in the chute. They usually form part of the wall of the working chute.

Blocking Gates located along the chute will prevent cattle from moving ahead or back. They usually slide across the chute on a track or drop down guillotine style on a rope and pulley.

Back Stops are similar to blocking gates except they allow the animals to move forward and only prevent them from backing up.

Kick Bars are located behind the animal in the squeeze to prevent the operator from being kicked while working there. Kick bar holes should be 12" to 14" above the floor of the crate or squeeze, and spaced 4'-6", 5'-0" and 5'-6" back from the headgate.

Scales can be located in the main chute or close by where cattle can be easily diverted into them. Some commercial squeezes have weigh bars mounted under them to provide a scale-squeeze combination.

Man Gates and Passes are both a safety factor and a convenience. A man gate behind the squeeze allows you to block off upcoming cattle. It also gives you some room to work, and allows you in behind

the animal without having to crawl over the chute every time. Man passes should be 11" to 14" wide and placed in the crowd pen, along the chute, or any place you could become trapped and need a fast escape route.

Loading Ramps can be placed coming off the working chute or out of holding pens. Cattle don't like climbing so a ramp should not be steeper than 30° and it should have 2" cleats spaced at 8". Cattle will move much easier up a stair step ramp with a 12" run and a 4" rise for the steps. Loading is also much easier if the cattle are in single file and there is a flat platform at the top of the ramp for them to step on or off the truck from.

How do I go about building a handling facility? Start by considering what you need and how you want to work your cattle. Visit a neighbour's facility, and find out what works or doesn't work for them. After all there's no sense in making the same mistakes as someone else. Fairs, farm shows and exhibits offer a good chance to see what is commercially available. Reading publications, and the popular press will also give you good ideas. Then you move on to sketching a plan, of the facility you want (preferable to scale). This will let you find out how to fit the different components into the space you have allowed. After all, it is much easier to move fences on paper than it is to move them once the post holes are dug. When you have a plan you are happy with it is time to move to the actual site

where you intend to build. There you again lay out your plan. This time however make it actual size and mark it off with spikes and baler twine. Then walk through it imagining how the gates will swing and the cattle will move. Then and only then, should you start to dig post holes. Build the fences first, and then adjust the gates to fit.

More information and plans are available on the Canada Plan Service (CPS) website at: <http://www.cps.gov.on.ca/english/frameindex.htm>, or from your nearest OMAFRA Office.



**West Nipissing
Soil & Crop
Improvement
Association**

Temiskaming IPM 2009 Update

The International Plowing Match is being held in Temiskaming in 2009. Plans are underway to ensure that this will offer a realistic portrait of life in northern Ontario. It was a unanimous decision of the organizing committee to include the mining and forestry industries in addition to agriculture. Temiskaming IPM 2009 will showcase the north and ensure our visitors have an opportunity to realize what we have to offer across Northeastern Ontario, not just in Temiskaming.

The IPM Board held its first volunteer recruitment meeting in January 2007 and the local support was overwhelming. More than 200 people filled the Dymond Hall to learn more about the 30 committees that work together to create a successful plowing match. A short PowerPoint presentation showcased the committees, potential volunteers were invited to meet the Chairs of the committees they were interested in. More than 150 volunteers filled out volunteer forms at that meeting. If you are interested in serving on any of the committees listed below, please contact the committee chair or an executive member for more information.

The Temiskaming IPM 2009 Executive will attend council meetings across the Northeast over the next two months to bring municipalities up to date on the progress of the match.

The Temiskaming IPM 2009 office is located upstairs at the Dymond Fire Hall.

Temiskaming IPM 2009
 181 Drive In Theatre Road.
 New Liskeard ON P0J 1P0
 Phone – 705-647-6910
 Fax – 705-647-4310
 Email – bowen@parolink.net

Darlene Bowen, Temiskaming Agricultural Projects Manager will be working on this project as the IPM coordinator. She will be managing the day to day administration of the Temiskaming IPM 2009. Her job will include working closely with the Board of Directors and providing administration and clerical assistance to the individual Committees. Darlene is not in the office on a full time basis, but can be reached by phone or email at any time during the day at the IPM office phone number.

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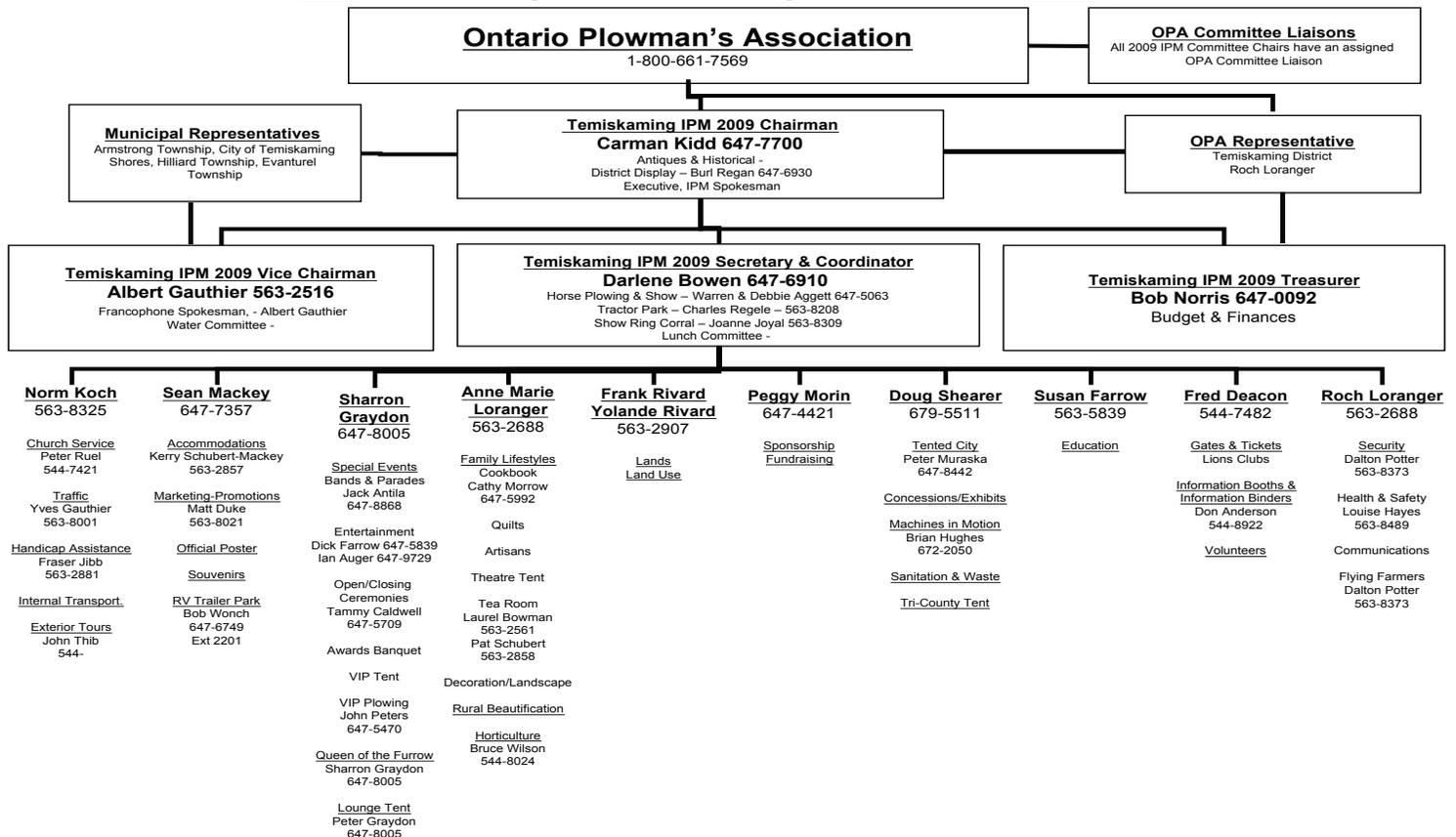
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Plans for the match are starting to take shape. In the future months, we will begin fundraising, hold an official launch, and erect signage to advertise the match. Watch for our next update in Breaking Ground as we keep you posted on the happenings of the Temiskaming IPM 2009.

Temiskaming IPM 2009 Organizational Chart



North-Eastern Ontario Regional Canola Trials - 2006/2007

(2006 Interim Report)

PURPOSE:

An initial 2005 study into "Canola Opportunities for N.E. Ontario" indicated a common factor across four districts. Under dry & hot conditions, plant tissue analysis appears to point out a sulphur deficiency in Canola (in many locations) during the blooming period. This was similar to complementary soil tests taken at the same time. Unconfirmed canola yields suggested that yield could be improved if Sulphur was added to the fertilizer.

The 2006 trials were designed for 2 purposes. First, confirm that increased Canola yields could be attained with the addition of Sulphur to fertilizer. Second, as recommended by John Rowsell of NLARS, determine the extent of Sulphur deficiency across the North-East and prove whether it is (or is not) a regional issue.

METHODS:

Four co-operators in the Temiskaming and Nipissing Districts agreed to test the value of added Sulphur on Canola crops. A test of 10# of actual S was to be added to the test plots in replication across the field.

27 individual canola fields (from 19 farmers across the Districts) would have one acre each evaluated for sulphur content of plant tissue (during the blooming period). This would be matched with soil tests from the same site. A 24" soil profile would be broken into samples representing the top 6", the 6" to 24" depth, and a 18" to 24" subsection.

These 27 sites represented a cross-section of soil types within the region.

Note that in a supporting financial agreement with Agri-Food Laboratories, we were able to measure much more than just the Sulphur content of the Tissue and the Soil. We also measured N, P, K, Mg, Ca, Zn, Mn, Cu, Fe, & B. Also measured was the September levels of Nitrate Nitrogen and Ammonium Nitrogen in 7 soil profiles (3 levels per profile).

RESULTS:

Out of the four cooperator trials, one was lost due to errors in fertilization. Two were lost to extreme damage by flea beetles in May and June, despite

the fact that the seed had been coated in "Helix". The fourth site was a major success.

This operator planted the whole field with a broadcast fertilization program of 80# actual N, plus 10# of S. The exception was three widely spaced strips of over 2 acres each, where no sulphur was placed, but the soil still received the full ration of N. Although the yield varied considerably between the sulphur-free strips, it was always lower than the yield obtained to each side of these strips where the sulphur had been added. The co-operator was very pleased with the results, and calculated that he had earned an additional \$25 to \$30 /acre yield to balance against an increased fertilizer and application cost for sulphur of \$4 to \$5 per acre.

The weather in 2006 was the direct opposite of 2005. The cool and wet conditions seemed to be ideal for sulphur to be drawn out of the atmosphere and deposited into the fields throughout the Region. This was suggested by the results of the mid-season top-soil tests in MOST (but not all) fields, where sulphur was at least marginally adequate. However, Sulphur was deficient in the lower levels of the profile in many of the test locations, much to our surprise as it was expected that these lower regions would be the storage area for Sulphur.

In contradiction to the apparent sufficiency of Sulphur in the soil, every last one of the Tissue Tests indicated that Sulphur was deficient in the plant during the blooming period, the time when the plant needs sulphur most in order to maximize yields. (Note that even in the "successful" strip test area, sulphur in the plant remained deficient, although the content was considerably higher in these tissue tests than in those where no Sulphur was added to the soil.)

Also note that the 7 soil tests obtained in September ALL showed sufficient Sulphur accumulation throughout the 24" profile. This compares to the fact that many soils showed deficient sulphur in lower parts of the soil profile in mid summer. (Does this indicate that fall soil tests for sulphur may not show the ac-



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Toll Free: 1-800-361-9255

tual availability of soil Sulphur during the growing season?)

NEXT STEPS:

In 2007, the project will continue with many more side by side comparisons of growth and yield under the influence of added Sulphur, with extensive evaluations of sulphur in the plant tissue and in the soil profile.

ACKNOWLEDGEMENTS:

The NEOSCIA would like to thank OSCIA for the initial funding of the Laboratory analysis section of this project, and to Agri-Food Laboratories for providing a matching grant to the OSCIA funding. We also wish to thank the Temiskaming Agricultural Development Agency for taking the initiative to acquire matching funds from the Northern Ontario Heritage Grant program. And finally, a big thank you to the 19 farmers who allowed us to use their fields as a research area.

PROJECT CONTACTS:

For more data on this project, contact Graham Gambles, Regional Communication Co-ordinator for the NEOSCIA at 705-647-3105 (e-mail gamblesgraham@yahoo.ca). Alternatively, contact Daniel Tasse at OMAFRA, New Liskeard, Ontario.

FINAL REPORT:

Available from the above contacts in February, 2008.

Trusts and Estate Planning

by Len Davies

There are many different types of trusts used to hold and own property. These trusts can be broken down into two different categories. One being an inter vivos trusts (trusts established while a person is alive) and testamentary trusts which are trusts that are set-up when the person who wants to transfer property at death dies. This trust is set up through the will of the deceased.

For the purpose of this newsletter we will deal with testamentary trusts only and in particular a trust that deals with a straight transfer from a settlor at death to a beneficiary. I will also attempt to briefly outline the use of Spousal Trusts and Henson Trusts.

Before going on in this article we need to define the parties in the trust:

- The settlor is the person who is putting property into the trust.
- The beneficiary is the person who will receive the benefits of the trust
- The trustee is the person becomes the legal owner of the trust property and is responsible for administering the trust in accordance with the instructions set out by the settlor.

The following are reasons for using trusts in estate planning:

- Trusts can be used to control how assets will be spent by giving the trustee the authority to control the assets. One would see this type of asset used where the beneficiary is not responsible enough to manage the assets wisely.
- Trusts are an excellent means of minimizing tax by perhaps deferring capital gains or providing a mechanism to take advantage of the tax planning tools since trusts are taxed as a separate individual

- Property held in a trust does not fall into the hands of the creditors of the settlor.

So you may be asking yourself how does one save taxes by using a trust. Well let's begin by realizing that a trust is distinct from the settlor and the beneficiaries. A trust in essence is another individual who would have the same graduated scale as the beneficiary would have for his personal tax reporting.

Let's assume that a farmer leaves farm property to one child and investments funds to another child. The child inheriting the investments funds is already in a high tax bracket due to the income he/she is already earning. The income earned by the investments would therefore be charged in the highest tax bracket. Since the trust is treated as an individual the trust income would be taxed according to the same graduated scale applied to personal income tax.

Another scenario may see a parent leaving money to a spouse to be used to finance their children's education. If the surviving parent is financially independent and already paying the high rate of income tax the earnings from the money for the children would be added to her income and she would pay her top marginal tax rate. If left in trust to the children each child would have their basic personal exemption and as a result there would be a lot less going to CCRA and more for the children for whom it was intended for.

Spousal Trusts

A spousal trust is set up when one person passes away and leaves property to their spouse but they would like to ensure that the property ends up in their children's possession after the surviving spouse passes away. For example let's assume that a farmer left his farm and investments to his spouse and wanted his children to eventually own the farm. He could put his assets in a spousal trust which would allow his spouse to use the growth on the assets and the income of the farm but the surviving



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spouse could never sell the farm. This way if the spouse remarries the property is protected if that spouse passes away and would not become property of the new spouse. You should be aware that there could be problems with this arrangement under the Family Law Act.

Henson Trust

If parents have a disabled child they should consider a Henson Trust. By putting funds into a Henson Trust the child may be able to receive benefits from the trust and at the same time these benefits would not affect any government subsidies. If a Henson Trust is not used to hold assets for the disabled person, funds received by a disabled child will offset government assistance programs.

There are other issues with trusts such as possible attribution rules and the 21 year rule among other things.

If you feel that a trust may suit your planning needs please give us a call and we can discuss it. If you wish to proceed we will work with you and your other professional advisors to implement such a plan.

Disclaimer –Neither Freedom 55 Financial, a division of London Life Insurance Company or its financial security advisors are engaged in the giving of tax, legal or accounting advice. You should seek independent professional advice from your lawyer and/or accountant before implementing any concepts discussed on estate planning.



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Wet Harvest Leaves Soil Erosion Challenges for this Spring and Beyond!

Adam Hayes and Anne Verballen, Soil Management Specialists, OMAFRA

The fall of 2006 will probably go down as one of the most difficult harvest seasons for a wide range of crops. In Ontario, there are numerous fields with deep ruts, compacted sections or even fields that were not harvested as winter closed in. A common question this winter has been what approach to take to rehabilitate these fields. Some growers used light fall tillage in between rain storms to fill in and cover over any damage. Others have left the ruts to mellow over winter, whether by plan or because the soil was just too wet. In some cases this spring this means we are looking at using tillage to repair ruts in no-till fields and certainly more primary tillage than many fields/areas have seen for a while.

The greater use of tillage and the reduction in cover cropped acres due to wet planting conditions means that we have more fields bare this winter and less crop residue will be covering and protecting fields. The potential for all types of soil erosion; wind, water and tillage, is much greater this year. It will be critical to maintain as much residue as possible on the soil surface during tillage operations and to use the least amount of tillage possible to achieve good crop establishment.

Well we've been here before. In the winter of 2005/2006 the PFRA commissioned The Soil Resource Group to review the current knowledge on soil erosion in Ontario. Much of the soil erosion research dates back to the 1970's and '80's. This is the data that helped to push forward funding and support for erosion control measures like reduced tillage and no-till, windbreaks and erosion control structures. Current programs like the Environmental Farm Plan (EFP) have their origins in this early erosion work. There is a value in looking back – our soils have not changed, they may have improved under the last 15 to 20 years of reduced tillage but like the saying goes, "Those that ignore history are

doomed to repeat it".

Research has shown that you can expect a 23 to 30 bu/acre loss of productivity on average for corn when 15 cm of soil has been lost due to erosion. Erosion has a direct on farm cost that was estimated for Ontario to be upwards of \$68 million and an additional \$100 million annually of off-farm damage due to sediment.

Soil erosion is often a matter of soil that has been rearranged within a field. Hills and slopes have lost nutrient rich topsoil while low areas have accumulated deep deposits of this moved soil. The result, a field with inconsistent fertility and water holding ability that is less productive overall and less resilient to stress. This is a concern in any year but will become more of a concern in the future. The climate change models suggest that we can expect to see more extreme and unpredictable weather. We are more likely to see more heavy thunderstorms and extended periods of either drought or wet conditions. We can expect to see more soil erosion because of what climate change will bring in terms of rainfall intensity.



We can expect that weather changes are only part of the pressures that climate change will bring to bear on our soil resource. The interest in renewable fuels will force some crop rotation changes and can be expected to leave less crop residues in many cases. Now is the time to take another look at what we learned about preventing soil erosion in the 1980's to ensure a productive future!

Ruts and heavily compacted areas from the fall 2006 harvest will need

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some careful tillage to get those areas ready for spring planting.

Cover crops and crop residues are some of the keys to preventing wind erosion. Wet fall conditions in 2006 prevented much cover crop planting.



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OSCIA News...

March 2007

A NEWSLETTER TO UPDATE OSCIA MEMBERS,
PRESIDENTS, SECRETARIES, TREASURERS, DIRECTORS,
AND OMAF CROP TECHNOLOGY CONTACTS —

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OSCIA 2008 ANNUAL MEETING

Date: February 5 & 6, 2008

Place: Sheraton Fallsview
Niagara Falls

Message from the President

OSCIA's annual meeting held February 6-7 at Stage West Hotel in Mississauga is now history with lots of thought provoking ideas and reports.

John Oakley, CEO, Michigan Biofuels LLC, showed us what a co-operative in Michigan is doing with biodiesel production. Tim Nelson, Agronomist, Australia, talked about the



Frank Hoftyzer

opportunities that came about in Australia when farmers grouped together their businesses and labelled their products. This strategy created unique markets from which they could demand a greater return for themselves. Dan Basse, President, AGRESOURCE, Chicogo, Illinois, ended our meeting with the confidence of high corn and soybean demand with corn expected to reach \$5.00 a bushel.

There has been a lot of activity in the countryside as indicated by the many grant reports with results from side-by-side trials in the field.

Our banquet speaker, Carl Hiebert, motivational speaker, entertained and informed us how Canadian farm families live, work and play. Driving a tractor from Canada's west coast to the east coast while photographing his journey helped the rest of us see the great beauty of our country. Meeting farm families along the way also revealed the good hearts of many people who helped in this adventure.

Thank you to all the speakers for a job well done.

This year will probably have it's normal challenges like temperature and rainfall, crop diseases, weed and insect pressures; and as farmers have done in the past, we will work to do our best at protecting the crops. Also this year we might be tempted to crop land or not rotate our crops as we should due to higher prices. With some commodities at a price possibly not seen for many years, our stewardship of the land must not be forgotten.

Increasing membership and providing more value to our members is a main focus. All of us need to take

ownership of OSCIA and move it forward. As local county and district Soil and Crop Associations are meeting and planning for field days, tours, Forage Masters program, and crop trials, please consider participating. Thank you to the folks that have conducted trials in the field and worked to improve technology.

As the Agriculture Policy Framework is in the process of review at this time, let us support the work that has been done through the Canada-Ontario Environmental Farm Plan.

As Spring planning and planting approaches, let us strive for an accident free and successful 2007 on our farming operations. ♦

OSCIA Annual Meeting

The 2007 OSCIA Annual Meeting was held in Mississauga February 6 & 7.

The meeting was well attended by members, executives of the local associations, provincial government crop specialists, and agri-business.

The theme of this year's meeting was "Improving Farm Production Margins".

A number of excellent speakers were featured whose presentations reflected this theme. Their presentations will be summarized in each issue of OSCIA News in 2007 by members of the OSCIA Regional Communication Coordinator team. Following is the first article.

"IMPROVING MARGINS WITH CO-OPERATIVES IN AUSTRALIA"

- John Shepherd, RCC, Golden Horseshoe Region

"G'Day Mate. I'm from the country where they drive on the wrong side of the road and the light switches are upside down." These were the opening words of Tim Nelson, an Australian agronomist, as he addressed the annual meeting delegates and guests.

Having been invited to speak about the value of farm co-operatives Mr. Nelson came with, in his words, "an Australian story or two" about the pitfalls and successes experienced by groups of farmers in setting up co-operatives in his country. He set the stage by saying there are 22 million people in Australia, only 4% of which are farmers and that number is declining. 80% of agricultural production is exported and consists primarily of wheat, barley, cattle and dairy products. Only 6.5% of the land is arable and land values are increasing rapidly. Net farm incomes have been declining since 1990 while rural debt has risen 1200% over that same period.

Sounding very much like he could have been describing North American agriculture, Mr. Nelson used the analogy of Cochran's treadmill to explain what has been going on in Australia. "Increased competition has lowered

returns. Lower returns have sparked increased productivity. Increased productivity has required new technology. New technology has led to a faster rate of adoption. A faster rate of adoption increases competition. And around and around it goes."

"Farm co-operatives are all about mitigating risk for individual farmers" said Mr. Nelson, and can be used as a valuable management tool. "When we have more people taking the risk it spreads the risk out. But you have to have a group that will work together for a common purpose." The first step in setting up a co-operative starts with



Tim Nelson

identifying the problem. The second step must decide who the players will be, and step three needs to outline a solution. Using as an example a group of farmers who felt they weren't getting the kind of research information they needed to operate their own farms successfully, Mr. Nelson went through the steps that led to a very successful farm co-operative. Having established the problem and who the players would be, they formed a co-op, which purchased a typical farm on which to do research. They hired a farm manager, commissioned the regional research to be done and disseminated the results locally.

But, Mr. Nelson had some words of caution. The board of directors needs vision, strategy, a purpose and leadership. To be successful, a board of directors must be made up of people with driving personalities who are willing to make personal sacrifices. "Love them or hate them, you will need them (the drivers)," he said. Board members must believe in what they are doing and must be prepared to contribute time, money and themselves. At the end of the day it will be energy and enthusiasm that carries the project through." On the other hand, he said, if you have one driver who does too much, the organization will suffer when he leaves. All successful boards, he said, must have the courage to remove board members who do not remain committed; and don't forget to develop an exit strategy, just in case things go wrong.

Mr. Nelson concluded his presentation by saying that farming is still much more than making money and is very much about being a respected member of a rural community. In his opinion, collective action can strengthen the glue that holds a community together. And never lose sight of the fact, he said, that you are producing a good healthy product. ♦

Be sure to watch for additional summaries of speakers in future issues of OSCIA News.

Syngenta Seed Fair Grants

Syngenta Crop Protection is sponsoring pedigreed seed fairs/shows during the fall and winter of 2006/2007.



Syngenta was formed from the skills and strengths of industry innovators – Novartis and Zeneca. Syngenta is the world's leading agri-business company operating across all major areas of crop protection and seeds. With representation worldwide, Syngenta is uniquely capable of finding ways to help the world grow crops better.

Syngenta is providing up to \$300 each to ten local association pedigreed seed fairs/shows. The grant will promote the growing of certified seed as a preferred farm management practice.

Grants for the 2006/2007 season have been approved to Leeds, Russell, Middlesex, Renfrew, Prescott, Lanark, Dundas, Dufferin, West Nipissing, and Stormont.?

OSCIA Supplies

Supplies are available to local associations through the OSCIA office in Guelph.

Among items available are:

"Freddy's Friends", a 14-page story/colouring children's book about forages. Created by the American Forage and Grassland Council, this is one of the first of many plans to educate children about forages.

Local associations may order Freddy's Friends for an upcoming event where children will be present. They are provided free of charge.

OSCIA Farm Gate signs, an aluminum pre-drilled gate sign measuring 5" x 17.5" with OSCIA name and local member designation. This sign is available in English and French. Local associations may order these signs to present to a member who has helped out in some way. They can also be purchased by the local associations for resale to their members. The signs are \$10 each.

Rain gauges are also available to local associations for distribution to their membership. The style in stock are the round type, calibrated in millimeters.

Please contact Evelyn Howse at the Guelph office should you wish any of these items.?

2006 Ontario Forage Masters Program - Simcoe North SCIA

The following is a letter from the Simcoe North SCIA that was received in the provincial office recently.

"North Simcoe Soil and Crop Improvement Association completed another successful Forage Masters Competition in 2006. The awards were presented November 15th at their annual Directors' Banquet. All the winners were present. President Joe Dyer presented the awards on behalf of: Agri-Food Laboratories, NK Brand Seeds and Ontario Soil and Crop Improvement Association. Leonard Hoogenboom, local Pickseed representative, presented the awards on behalf of Pickseed Canada.

Enclosed is a picture of our Forage Masters winners:

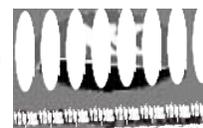


L to R: Ken Parnell (1999 Ontario Forage Master), Peter Kaptyn (3rd place), Kyle May/Drew Langman (2nd place), Greg/Kevin Wood (1st place), Leonard Hoogenboom (Pickseed representative), Joe Dyer (President of Simcoe North SCIA).

On behalf of all competitors and North Simcoe Soil and Crop Improvement Association, I would like to thank Ontario Soil and Crop Improvement Association and Evelyn Howse for all your organizing and background work. Everything was in place for our awards presentation. The 4-H competitors were pleased with their prizes and I would expect to have 4-H members participating in the 2007 competition."?

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2007 Ontario Forage Masters Program

2007 marks the 20th year of the Ontario Forage Masters program. Involvement of the Soil and Crop members across Ontario continues to grow, as evidenced by the numbers of entrants.

Guidelines for this year's Ontario Forage Masters program have been released.

The sponsors - Pickseed Canada and Agri-Food Laboratories - are again offering valuable prizes to the top winners from each local association.

For a listing of prizes, the guidelines, and how to enter, you are encouraged to contact your local association president or secretary, who have recently received complete details.

The guidelines will also be posted on the OSCIA website in the near future.

The deadline for local associations to submit entries to the provincial office is April 20, so don't delay. Contact your local association secretary today. ♦

Past President Memoriam

Victor Roland, who served on the OSCIA Executive, and as its president in 1994, passed away in 2005.

Recently, Victor's widow, Margaret, presented the Country Heritage Park in Milton with a donation of \$10,000 in Victor's name. These funds will provide an excellent start to the Park's major fundraising campaign for the continuing operation and development of the facility.

Country Heritage Park was previously funded through grants from the Ontario government, which ended in 2006. Victor and Margaret dedicated many hours to organizing and assisting at events.

Victor was passionate about heritage activities and he would be pleased to know that they were able to make a considerable contribution to its continuing success.

Reg Cressman of the Country Heritage Park said "Victor had an excitement for everything he did, a love of life, and his enthusiasm was very contagious". ♦

OSCIA Membership Display

OSCIA has revamped and revitalized the OSCIA membership display which is available to local associations for meetings and events.

Please contact Evelyn Howse at the Provincial Office (1-800-265-9751) if you wish to borrow the display.

FARM SAFETY WEEK

March 14 - 20

"Protect Your Moving Parts"

The parts of the body most often involved in farm accidents are the fingers and hands, accounting for about 26 per cent of all farm injuries.

Feet and toes are involved in about 11 per cent of all farm accidents thereby making extremities account for approximately one-third of all farm injuries. Often, a finger or toe will be caught initially, followed by a limb and possibly the entire body being drawn into a piece of machinery.

Remember -

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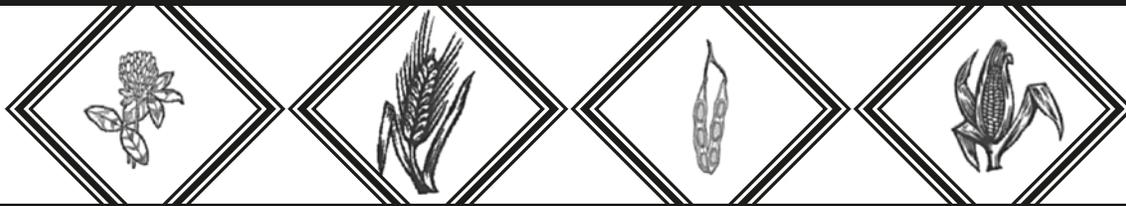
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Publication Order Centre: 1-888-466-2372

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:

Brought to You by the Following OMAFRA Crop Specialists

Horst Bohner

• Does Precision Soybean Seeding Pay?

Mike Cowbrough

• Jimsonweed - An Emerging Problem in Field Crops?

Keith Reid & Greg Stewart

• Which Fertilizer Attachment Should I Put On That New Planter?

Christine Brown

• Comparing The Value Of Various Manure Types

Adam Hayes

• Tillage & Rotation Imports On Soil Quality

Ian McDonald

• Where Will You Be Five Years From Now?

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

Organic Crop Production

by Keith Reid, Soil Fertility Specialist, OMAFRA, Stratford

Can you make money going organic? We know there is a growing demand for organic products. Prices for organic over the past 5 years have been consistently strong. Grain prices have been 2-3 times conventional grain prices.

Organic Grain Prices

Organic prices are set based on supply and demand. Prices have no connection to the Chicago Board of Trade prices that set the trends for most conventional crops. Therefore, the current upswing in corn prices has no impact, just as the low prices of the past few years had no impact.

Organic grain prices for next fall are strong. This is due to both the food grain markets and the strong livestock feed markets for the rapidly growing organic livestock sector. A weak spot this winter has been in food grade soybeans, which have come under increasing pressure from Chinese soybean imports and the hesitation by Canadian organic grain handlers to try to match their low prices. China has also been strong in the Japanese market, which has been a destination for many Ontario soybeans over the years.

Organic Crop Budgets

The 2007 OMAFRA Crop Budgets (www.omafra.gov.on.ca/english/busdev/facts/pub60.htm) include budgets for organic grain corn, soybeans, spelt, winter wheat, barley and oats.

The organic production includes slightly more expense for mechanical weed con-

trol and hand weeding. The expenses for herbicides and fertilizers are omitted. Costs for manure/compost and cover crops are also included as appropriate, but the actual costs of these inputs will vary depending on the farm. Overall, the costs per acre are very similar for organic and non-organic crop production when using conventional tillage.

Organic Crop Returns

The following chart estimates some yields, prices and gross margins (using the budgets) for organic and non-organic production. Organic yields are assumed to be about 20-25% lower than con-

Continued on page 15



Keith Reid
Soil Fertility Specialist
Hugh Martin
Organic Crop Production Program Lead
Ian McDonald
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Albert Tenuta
Field Crop Pathologist
Brian Hall, Alternative Production Systems Specialist
Scott Banks
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COVER-ALL

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Organic Crop Production

Continued from page 14

ventional yields, but this varies and generally improves with organic experience. Prices and yields will vary for your farm situation. I recommend you look at the OMAFRA crop budgets to enter in your own input numbers. Land costs and the cost of transition to organic are not included in this comparison.

These numbers can look impressive for organic, but organic is not for everyone. Converting to organic tends to be a long term commitment and requires good records for the certification process. The transition to organic will take 2 to 3 years, where the field must be managed as organic and the transition crop is generally not able to get premiums. The best transition crops tend to be cereals and hay crops. Weeds are usually the biggest problem to manage in row crops, but good rotations help to manage weeds. You must use non-GMO crops. More information on organic is at www.omafra.gov.on.ca/english/crops/organic/organic.html.

Organic Crop Returns

Crop	Yield	Price	Estimated Gross Margin
Soybeans	30 bu/ac	\$16/bu	\$281/ac
Corn	98 bu/ac	\$7.25/bu	\$375/ac
Winter wheat	60 bu/ac	\$8.25/bu	\$251/ac
Spelt	1.1 tonne/ac	\$400/tonne	\$186/ac

Non-Organic Crop Returns

Crop	Yield	Price	Estimated Gross Margin
Soybeans	40 bu/ac	\$8.00/bu	\$131/ac
Corn	130 bu/ac	\$4.00/bu	\$146/ac
Winter wheat	75 bu/ac	\$4.50/bu	\$162/ac

WORDS OF WISDOM

by Greg Stewart & Chris Brown

(as told to the gathering at the OSCIA Annual Meeting, Feb.06, 2006)

7 BIG LESSONS FROM 2006 and 7 HOT TIPS FOR 2007

LESSON #1: Ideal weather is essential for record yields. Most days between 25 & 30 C. plus most nights above 10C, combined with adequate rainfall every 2 or 3 days in July produced record yields of wheat, corn & soy.

LESSON #2: Record corn yield in 2006 came as a result of weather, NOT the application of "Insurance" applications of Nitrogen fertilizer. Stick to OMAFRA recommendations.

LESSON #3: Best yield for RR Corn is obtained by applying Glyphosate at the 3-4 leaf stage. Later applications provide a clean field, but corn yield has already been suppressed by early competition.

LESSON #4: "Haylage in a Day" does work in a wet summer if you cut WIDE swaths in A.M.

LESSON #5: Manure is worth \$110/ac. or 29 Bu./ac. CORN. Values show up when commercial fertilizer costs go up.

LESSON #6: Big recovery in Soy yield under ideal weather compared to 2000 to 2003 period. Increase average of .3 bu/ac./year yield since 1940. Planter is best for populations under 150,000 seed, but drill is best over 200,000 seeds.

LESSON #7: Ontario, at 88.5 bu/ac., has best wheat yields (compared to N.E. USA) due to superior management over last 3 years.

TIP #1: Ruts (compaction) will show up this spring in conventionally tilled fields. To fix, make a seed bed, but don't plow too deep. Plant EARLY on the MOST RUTTED FIELD (before the soil dries out).

TIP #2: Stay in touch with developing problems across the Province by regular contact with the CROPLINE at www.ontario.ca/crops, or www.gocorn.net, or call 1-888-449-0937.

TIP #3: Evaluate winter wheat survival (especially on knowls & flooded area). Dig up a few plants, bring them indoors, and see if you can get new WHITE root growth to occur under artificial warmth and light.

TIP #4: Understand the "Planting Window Crunch". Soy must be planted early to get the best yields, the same as corn, BUT corn can be planted into cooler soils. Work to improve your planting efficiency. This is a management decision that must be made recognizing many variables.

TIP #5: Edible bean production in 2006 was poor and seed born diseases may be common. In 2007, buy seed from TRUSTED sources.

TIP #6: Forage fields are commonly low in potassium if manure is not readily supplied. Do soil tests and build up your K levels.

TIP #7: Invest in SUSTAINABILITY in 2007. Preserve quality of on-farm natural resources such as water. Evaluate organic farming. Buy low inflation pressure tires.

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Manure Application to Forages – An Economical Alternative

by Christine Brown, Nutrient Management Lead, OMAFRA, Woodstock

Manure application to forage crops can provide both a yield and quality benefit compared to commercial K or no application, according to an Oxford SCIA trial.

During the summer of 2006, manure was applied after 2nd or 3rd cut (at rates between 2,000 and 4,500 gallons/acre) after hay or haylage harvest on 8 replicated sites. Manure applied to alfalfa-grass crops showed a 12% yield increase and a slight quality benefit. When the quality parameters were compared in a spreadsheet that calculates “milk per ton” of forage, manure applied to forages gave an average 88 lbs more milk per ton (quality improvement) and 229 lbs more milk per acre per cut (yield + quality). This is shown in Table.

Advantages Of Applying Manure To Forage

The best option is still to spring apply manure to corn crops, because this option gives the highest economic return from

the nitrogen. However, there could be several reasons a livestock producer may choose to apply manure to forage crops. Some of these reasons include:

- spread out workload to less busy times of the year
- reduce manure storage requirements
- prevent compaction damage to soils
- more opportunities and alternative crops to which to apply manure
- lower application rates – lower environmental risk

Manure applied to forage can meet these objectives while providing N-P-K that will save commercial fertilizer inputs.

Timely Application Is Important

The greatest challenge in applying manure to forage fields is timely application to prevent “traffic damage”. Haylage fields are ideal since they are harvested more quickly than dry hay crops. . It is

critical that manure be applied as soon after forage harvest as possible. When manure is applied to alfalfa regrowth, the plants impacted by wheel tracks must restart growth. This regrowth will be from crown buds, as opposed to a combination of crown buds and apical bud regrowth from stems. Manure applied between 11/2 to 2 weeks after the field was cut, risks a yield reduction of up to 50% in areas affected by wheel tracks.

Good quality forages are essential to animal nutrition, which makes timely harvest for all forage fields a priority to manure application. Therefore, when manure application for forages is considered, adequate labour and equipment are required to be able to combine timely forage harvest with timely manure application. Targeting manure application to last-cut fields, or having manure custom applied are alternative options. Manure applied to forage can meet these objectives while providing N-P-K that will save commercial fertilizer inputs.

Table. Yield/Quality Response from Manure Applied to Forages (average of 8 locations during 2006)

Treatment	Yield Data		Quality Data						lbs Milk from Forage			
	Yield/cut (ton/ac)	Difference	C.P.	ADF	NDF	Lignin	K	TDN	lb/ton	difference	lb/acre	difference
(# samples)	wet tons	%	%	%	%	%	%	%		% (lbs)		% (lbs)
Without Manure (60)	6.41		21.8	36.0	47.0	7.5	2.8	60.1	1442		1485	
With Manure (68)	6.97	8.0	22.1	35.1	45.9	7.0	3.1	61.0	1530	5.6 (88)	1714	13.4 (229)

¹Using ILK91 with all preset defaults except forage quality parameters (milk price \$72.55/lb)

Milk91 is an Excel spreadsheet that uses the forage analysis (CP, ADF, NDF) to calculate an approximation of a balanced ration using NRC values

Frost Seeding to Improve Forage Stands

by Gilles Quesnel, Field Crop IPM Program Lead, OMAFRA, Kemptville & Jack Kyle, Grazier Specialist, Lindsay

Frost seeding is used to improve productivity and forage quality of pastures and hay fields by broadcasting seed on frozen ground. Conventional tillage, minimum tillage and no-till usually have higher establishment success rate than frost seeding. However, frost seeding can be an economical way of rejuvenating an existing forage stand when tillage or no-tilling seeding are not viable options because of soil depth, variable soil drain-

age, stoniness, risk of soil erosion, cost or immediate forage needs.

Time of Seeding

For most of Ontario, the best time to frost seed is from mid-March or early April, once the snow is all or nearly all melted. Ideally, the ground freezes and thaws at least 2 to 3 times after the seed is broadcast. This freeze-thaw action helps

to incorporate the seeds into the soil surface. Avoid frost seeding on top of snow where any run-off from rapid snow melt will wash the seed away.

Equipment

Frost seeding is often done using a spinner-spreader on an all terrain vehicle (ATV), a snowmobile or a tractor. In par-

Continued on page 17

Breaking Ground (in Northeastern Ontario)

Frost Seeding to Improve Forage Stands

Continued from page 16

ticularly rough or small areas, a hand-held broadcaster may be the preferred option.

Site Selection

For the seeds to germinate there needs to be good seed to soil contact. The best sites for frost seeding are thinning grass stands with some soil exposed.

Seedling establishment can also be improved by overgrazing or clipping to 5 cm the previous fall to open the stand, weaken the existing plant growth and allow for better freezing and thawing action. Frost seeding is least successful in fields with thick sod.

Species Selection and Seeding Rates

Red clover is the easiest species to frost seed. The seed is dense, which improves seed-soil contact, it germinates at low temperatures and has high seedling vigour, allowing it to start growing early in the spring. Birdsfoot trefoil and white clover have been frost seeded with varying degrees of success. Birdsfoot trefoil is more difficult and slower to establish than red clover, but it is non-bloating. Once established, it will grow well under a wide range of growing conditions, and will persist longer than red clover.

Grasses are rarely frost seed successfully. However, research at the University of Wisconsin by Dr. Dan Undersander demonstrated greater establishment success with

orchardgrass and Italian (annual) ryegrass than with timothy or reed canarygrass. Smooth brome grass was intermediate for establishment, but is more winter hardy than orchardgrass and Italian ryegrass.

Because of auto-toxicity, which will prevent new alfalfa seedlings to grow in the presence of a mature alfalfa plant, alfalfa is not well suited to frost seeding.

Frost Seeding Rates

Use the higher seeding rates when significant bare ground is visible.

Species	Seeding Rate Kg/Ha (lbs/acre)
Red clover	3 – 6
White clover	2 – 3
Birdsfoot trefoil	3 – 6
Orchardgrass	3 – 4
Italian ryegrass	4 – 8

Fertilizing

While phosphorus fertilizer benefits new seedlings, in a frost seeding situation, fertilizing the field will provide the advantage to the existing plants. A better option is a late summer application of phosphorus and potash to promote growth and winter persistence of the newly established legumes. In the year of seeding, if an adequate stand (40% or more legume) is established, avoid the application of nitrogen fertilizer. Nitrogen fertilizer will increase the competition from grasses. In stands where there is a low level of legume, there will be a yield response from the grasses to additional nitrogen. If nitrogen must be applied to increase production, it should be limited to less than 50 kg/ha (actual) during the first season.

Harvest Management

Once the new seedlings are established, regular grazing or harvest will reduce competition from existing grasses and allow light penetration into the canopy. In the year of establishment, avoid overgrazing by keeping at least 5 to 8 cm (2 to 3 inches) of top growth.

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Starter Fertilizers with Canola – Too Much of a Good Thing?

by Brian Hall, Edible Beans & Canola Specialist, OMAFRA, Stratford

Seed-placed phosphorus (P) fertilizer is one of the most efficient means of applying phosphorus, often with better results than broadcast application. Starter fertilizers work very nicely with cereals and corn, aiding stand establishment and boosting yields. In winter wheat, starter fertilizer MAP has shown up to an 8 bu/ac yield advantage in Soil & Crop trials.

Canola Less Responsive

Canola, on the other hand, is less responsive to seed-placed fertilizer. In the first 30 days of wheat plant's life it uses fifteen pounds per acre of phosphorus. Corn uses four pounds per acre in the first 25 days. Canola uses 3 lbs in the first 35 days (5-leaf stage). Seed phosphorus content is enough to support canola seedling growth for about 7 days. After that time the seedling requires an external phosphorus source from the soil or fertilizer. Canola is recognized as a better scavenger of soil nutrients than many crops. Not only does canola produce longer root hairs, it releases organic acids that help it extract nutrients from the soil.

More Sensitive To Burning

Canola is also much more sensitive to seed-placed fertilizer than corn or cereals.

OMAFRA Recommendations

The OMAFRA recommended rate for spring canola is a maximum 20 kg/ha (18 lb/ac) phosphate fertilizer be drilled with the seed as superphosphate or monoammonium phosphate (MAP). Nitrogen, except as MAP and potash,

should not be applied with the seed. Table 1 compares the maximum safe rate of a couple of fertilizer types placed with the seed for canola and spring grain. Seed placed fertilizer injury is less likely to occur in a year with good soil moisture.

	Spring Canola	Spring Oats/Barley or Spring Wheat ¹	
	All soil types	Sandy or Sandy Loam soils	Loams, Silt or Clay Loam soils
	Maximum safe rate Fertilizer kg/ha		
MAP (11-52-0)	40	350	450
19-19-19	0	80	80
8-32-16	0	229	291
6-24-24	0	183	233

¹For information on maximum safe rate of nutrients on spring cereals or other crops refer to OMAFRA

Agronomy Guide 811 (pg 47), Soil Fertility Handbook (pg 171), or on the web <http://www.omafra.gov.on.ca/english/crops/pub811/2fertmat.htm#table230>

Corn, wheat and spring cereals are monocotyledons plants. This means the seed sends out the shoot and root from the ends of the seed, and the seed remains basically intact. The seed coat protects the plant as it emerges. Canola and soybeans are dicotyledons. As the canola plant emerges, the two halves of the seed split apart. Fertilizer can burn the tender heart of the plant that is no longer protected by the seed coat.

Research

A recent University of Saskatchewan study confirmed the higher sensitivity of canola to starter fertilizer (Figure 1). There were no significant differences in canola emergence at rates up to 20 kg/ha of phosphorus, applied as MAP (11-52-0), but at 30 kg/ha canola emergence was reduced to 83%.

Plant phosphorus uptake in the first 4 weeks of growth increased in response to seed-placed P as expected, as did overall growth (Figure 2). Spring wheat was much more responsive to seed applied phosphorus in plant uptake than canola. There is some evidence to suggest that on low testing phosphorus soils, canola does benefit in early growth and yield from starter phosphorus.

Fig. 1 Effect of seed row phosphorus (MAP) on canola emergence

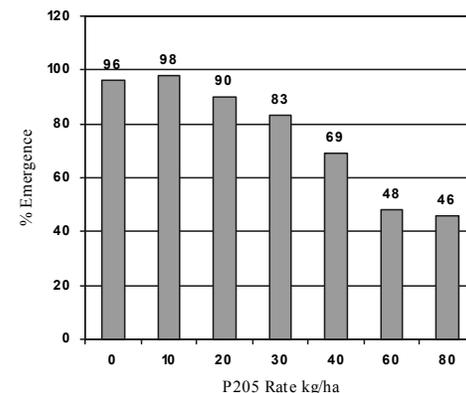
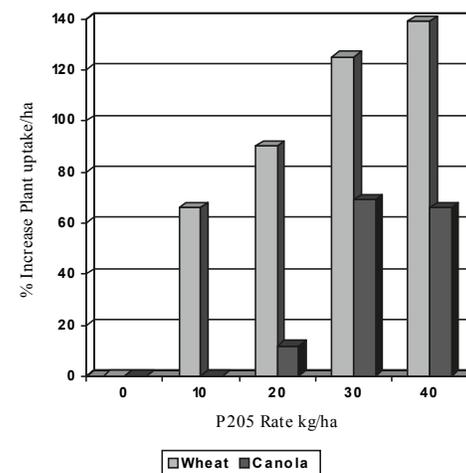


Fig. 2 Effect of seed row P on canola and spring canola emergence wheat plant uptake.



Adapted from Crop Tolerance & Response to Seed-row Fertilizer, University of Saskatchewan, 2005.

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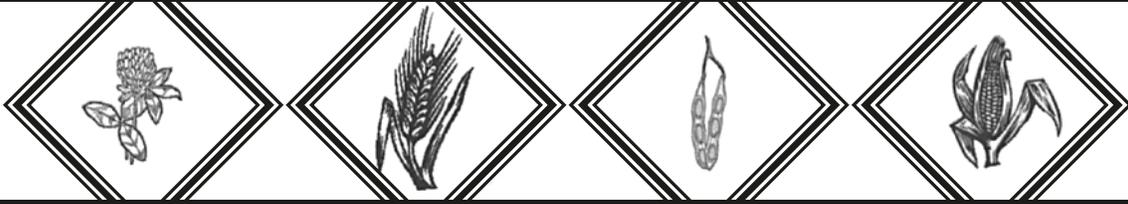
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MAAARO – des spécialistes en grandes cultures – votre source d'information

Les semences des mauvaises herbes et le fumier

par Christine Brown, chef du programme de gestion des éléments nutritifs, MAAARO,

Woodstock et Mike Cowbrough, spécialiste des mauvaises herbes, MAAARO, Guelph

L'épandage de fumier favorise-t-il l'apparition de mauvaises herbes?

Lorsque le fumier est répandu dans un champ, on constate souvent un regain de mauvaises herbes.

On se demande souvent si ce regain

provient des semences disséminées dans le fumier par le bétail, ou si leur apparition est favorisée par l'ajout des nutriments du fumier. Bien que tout le monde semble d'accord pour dire que la menace des mauvaises herbes va de pair avec l'augmentation de la fertilité, quelques principes simples aideront à réduire, dans le champ, le risque de propagation des mauvaises herbes que représente le fumier.

1. Déversez le fumier dans le champ où le fourrage qui a servi à le fabriquer a été récolté, afin de limiter l'apparition de nouvelles espèces.
2. Si la source d'alimentation provient de l'extérieur de la ferme, recherchez, dans les champs de destination, d'éventuelles nouvelles mauvaises herbes. Si de telles espèces existent, éliminez-les en utilisant un herbicide ou tout autre moyen de lutte contre les mauvaises herbes, surtout s'il s'agit d'espèces prolifères et tenaces.
3. Les espèces présentant de petits téguments très durs sont les plus susceptibles de résister au système digestif du bétail et à l'entreposage du fumier. Les plus courantes d'entre elles sont le chénopode blanc, la renouée et l'abutilon. Les semences de mauvaises herbes viables sont difficiles à éradiquer car elles peuvent rester longtemps en dormance. Des paramètres comme

la fertilité du champ, sa température et le travail du sol peuvent influencer la viabilité et la période de germination. Le tableau 1 « Viabilité relative des semences de mauvaises herbes sélectionnées » indique le nombre approximatif de semences par plant et la longévité des semences des mauvaises herbes les plus courantes.

4. La dissémination des semences de mauvaises herbes provenant du fumier est moins importante si la banque de semences de ces espèces est déjà élevée. Il est essentiel que les stratégies de lutte contre les mauvaises herbes tiennent également compte des espèces pouvant provenir de l'épandage de fumier. Ces stratégies peuvent inclure les herbicides, le travail du sol, le fauchage,

la rotation des cultures ou encore, un mélange de ces techniques.

5. La mise en compost du fumier s'effectue à des températures élevées (50 à 70 °C) qui détruiront la plupart des semences. L'expérience a cependant démontré que certaines semences comme celles des tomates et de l'abutilon survivent au compostage. Toutefois, le processus de compostage interrompt souvent le stade de dormance. Ces espèces germent généralement en même temps, ce qui rend la lutte plus aisée que si la germination se produisait par vagues successives.
6. Observez les stocks de fumier et les environs. Quelles sont les mauvaises herbes qui poussent sur les tas de fumier ou dans l'entreposage de liquide? Les semences suivantes ont démontré leur viabilité dans le fumier et risquent d'être dispersées dans le champ.



Tableau 1 : Viabilité relative des semences de mauvaises herbes sélectionnées

Nom vernaculaire	Cycle de vie	Semences par plant	Longévité relative de la semence (années)
Chardon des champs	Vivace	680	3
Sétaire verte	Annuelle	7 160	3 **
Chénopode blanc	Annuelle	72 450	20 et plus*
Amarante à racine rouge	Annuelle	117 400	25-30
Renouée	Annuelle	3 140	10-20
Abutilon	Annuelle	~2 000	> 40
Renouée liseron	Annuelle	11 900	20 et plus*
Moutarde des champs	Annuelle	13 400	3-5
Folle avoine	Annuelle	250	0-8

Source : Agriculture Manitoba

*Conn et al., 2006. *Weed Science*, vol. 54, n° 3, pp. 464-470.

**Masin et al., 2006. *Weed Research*, vol 46, n° 5, pp. 362-370.

Le foin pour chevaux comme culture commerciale?

par Joel Bagg, spécialiste des cultures fourragères, MAAARO, Lindsay

Le paysage rural de l'Ontario se modifie et on constate l'apparition de plus en plus de haras. L'Ontario compte près de 300 000 chevaux, et ce chiffre ne cesse d'augmenter. Ces chevaux consomment environ 750 000 tonnes de foin par année. Beaucoup des neuf millions de chevaux que comptent les États-Unis se trouvent à distance de camionnage de l'Ontario. Pour les producteurs de foin, ils représentent un vaste marché potentiel. Mais ce marché ne s'acquiert pas sans préparation.

Soyez attentif aux besoins de votre client

La première règle de la réussite commerciale, c'est de comprendre ce que désire le consommateur, puis de le produire. Pour réussir dans le commerce du foin, il faut à la fois savoir produire et commercialiser. La connaissance du client et de ses attentes en termes de qualité sont des outils essentiels pour s'approprier une niche de ce marché. Avant de commencer à produire du foin, faites une étude de marché.

Éliminez la moisissure, la poussière, et tout dégât dû à la pluie

Les critères de qualité sont assez différents selon qu'il s'agit de foin pour des chevaux

ou pour du bétail. Pour les producteurs laitiers, un fourrage de qualité contiendra un haut taux de luzerne et aura subi une coupe hâtive afin que la concentration en protéines et l'énergie digestible soient élevées. Par contre, pour les propriétaires de chevaux, « qualité » signifie exempt de poussière et de moisissure. La moisissure est la conséquence des dégâts provoqués par la pluie, de la mise en balle par temps très humide, d'un lent séchage du foin en andains dû à une forte humidité de l'air ou d'un entreposage dans de mauvaises conditions. Les chevaux sont très sensibles aux spores de moisissure, qui provoquent des irritations de leurs voies respiratoires. Ces irritations peuvent entraîner l'emphysème chronique (toux chronique), et le sifflement, très préjudiciable.

Le bon type de foin pour le bon cheval

La valeur nutritive du foin doit être en relation avec les besoins alimentaires. Aux différents types de cheval et à leurs diverses utilisations correspondent différents niveaux de besoins en nutriments. Les chevaux ont des besoins en protéines brutes inférieurs à ceux des vaches laitières. Certains types de chevaux, comme les chevaux adultes peu ou pas utilisés, ont des besoins en protéines brutes souvent inférieurs à 10 %. Les juments poulinières qui allaitent, les chevaux de haute performance et les chevaux en pleine croissance doivent recevoir une alimentation riche en énergie digestible et en protéines, et donc un foin au contenu nutritif supérieur. Cependant, une vaste proportion des chevaux vivant dans la campagne, notamment les chevaux de loisirs oisifs ou utilisés occasionnellement, n'a pas besoin d'alimentation riche ou même moyennement enrichie en énergie ou en protéines.

Pour une grande part du marché de foin pour les chevaux, la coupe hâtive visant à augmenter la concentration en protéines et en énergie digestible n'est pas si indispensable, et même parfois pas très souhaitable. Un cheval adulte utilisé pour des promenades occasionnelles prendra trop de poids s'il est nourri de foin à haute énergie digestible. Pour préserver la santé de ce cheval, il est bien plus important de



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se procurer du foin exempt de moisissure et de poussière. Les mélanges d'herbage ou d'herbage et de luzerne conviennent souvent très bien. Le mélange le plus prisé est généralement constitué de luzerne et de pléole des prés.

Écologique, doux et sans mauvaises herbes

La couleur ne donne aucune information directe sur le contenu nutritionnel du foin. Par contre, le manque de couleur peut révéler des problèmes survenus au cours de la récolte et de l'entreposage. Un foin vert intense n'a pas subi de pluies, a séché rapidement (ce qui signifie un plus haut taux de sucre) et n'a pas dégagé de chaleur ni développé de moisissure pendant l'entreposage. Les mauvaises odeurs peuvent aussi révéler la moisissure. Les mauvaises herbes et les débris, comme du vieux chaume, réduisent la valeur du foin pour chevaux. Les mauvaises herbes présentes dans les pâturages et le foin sont extrêmement toxiques pour les chevaux. Les chevaux apprécient plus le goût du foin souple. Contrairement au bétail, lorsqu'ils mangent, les chevaux utilisent leur bouche et leurs lèvres pour manipuler le foin et les végétaux du pâturage. Ils trient la nourriture avec facilité et mangent les feuilles tout en laissant les grosses tiges.

Le conditionnement : type et taille des balles

Même si les propriétaires de chevaux achètent autant les grandes bottes rectangulaires que les grosses balles rondes, les petites bottes permettent plus de rejoindre un marché du foin pour chevaux

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Le foin pour chevaux comme culture commerciale?

mieux coté. La production de ces petites bottes nécessite le travail à la main ou l'investissement dans du matériel de manutention automatique. Souvent manipulées, les petites bottes doivent être assez fermes, avec des coins « bien rectangulaires » et doivent pouvoir garder leur forme. Il faut définir la taille des bottes en fonction du transport par camion. Les petites bottes devraient être entreposées sur leur côté. Comme le font les cercles entourant les tonneaux, les ficelles aident à garder la forme de la botte et à éviter qu'elles ne s'écrasent. De cette manière, elles peuvent mieux « respirer » et évacuer l'humidité.

Leur moindre coût incite certains propriétaires de chevaux à forcer la demande de grandes bottes de foin. Les grandes bottes représentent un moyen pratique de nourrir un grand nombre de chevaux à l'extérieur, mais bien des haras ne possèdent pas de tracteur-chargeur pour les manipuler. Les grosses bottes peuvent être « désagrégées », et sont donc aussi pratiques que les grosses balles rondes pour nourrir les chevaux dans les stalles. Plus denses, elles doivent être séchées avant la mise en balles. Pour cette raison, elles sont plus susceptibles de contenir de la moisissure et la poussière.

Les compétences commerciales

La commercialisation ne se résume pas à produire et à vendre un produit à un prix quelconque. La commercialisation implique l'identification d'un produit recherché par les clients, puis sa production. Parlez aux clients potentiels pour saisir les occasions du marché. De quelle sorte de foin ont-ils besoin? Sous quel conditionnement? Visez-vous le marché local ou l'exportation? Comment assurer le paiement? Gagnez des parts de marché en vendant un produit de qualité, plutôt que de vendre à bas prix. Travaillez en relation avec un distributeur réputé, ou créez votre propre marché en utilisant des réseaux, la publicité et les contacts personnels.

La vente du foin se base sur la réputation. Pour une activité commerciale continue, veillez à combler les attentes de la clientèle en ce qui concerne le type et la qualité du foin. Il est plus facile de fidéliser des clients que d'en trouver de nouveaux. Vérifiez que vous avez une assurance responsabilité adéquate. Les producteurs de foin qui visent le marché des chevaux peuvent également vendre sur d'autres marchés un foin à la qualité réduite par les dégâts dus à la pluie ou par la moisissure. Ce foin est souvent vendu à un prix inférieur pour nourrir les vaches

d'élevage de boucherie.

Le foin pour chevaux comme culture commerciale

Les producteurs et les négociants en foin à chevaux qui réussissent se préoccupent des détails. L'utilisation de nouvelles technologies pour la récolte du foin, comme de nouvelles conditionneuses, les râtaux-faneurs à toupie, les inverseurs d'andains groupés, les agents de conservation et les groupeurs de balles peut réduire le temps de séchage et le travail. Les cultures de foin ont de hauts taux d'élimination de phosphore et de potasse : il est donc essentiel de fertiliser.

Pour ajouter de la valeur aux cultures de foin, on peut également produire des produits ciblés et offrir du service à la clientèle, comme le transport par camion. Les fermiers qui voient le foin à chevaux comme un marché complémentaire et ne produisent pas un foin spécialement destiné aux chevaux sont souvent déçus et passent à coté des prix supérieurs potentiels indispensables pour faire du profit. Veuillez consulter l'article « Making & Marketing Horse Hay » ainsi que d'autres articles sur la page « Fourrages » du site Web du MAAARO, à l'adresse <http://www.omafr.gov.on.ca/french/crops/field/fourrages.html>.

La bioéconomie naissante fera-t-elle partie de votre avenir?

par Ian McDonald, coordonnateur de la recherche appliquée, MAAARO, Guelph

J'ai eu l'occasion d'assister à la conférence BIOCAP qui a récemment eu lieu récemment à Ottawa. Peut-être ne connaissez-vous pas BIOCAP. Depuis 2002, cet organisme s'occupe activement de bioéconomie. BIOCAP (Biological Capital) est constituée de plusieurs particuliers et d'organismes des milieux agricoles, industriels, gouvernementaux et universitaires. Ensemble, ils sont parvenus à allouer une somme de 5,7 millions de dollars, augmentée de plus de 20 millions destinés à la recherche. BIOCAP se donne pour objectif de promouvoir la recherche à l'échelon national en vue d'élaborer un système biosphérique viable permettant de lutter contre les gaz à effet de serre et fournir des sources d'énergie, des produits chimiques et des matériaux écologiques. Cet organisme fournit des conseils scienti-

fiques aux gouvernements sur la façon de mettre le « Canada vert à l'honneur ».

Donner sa place au Canada

« Et ensuite? », direz-vous! « En quoi est-ce que ça me concerne? » C'est une excellente question. Mais je pense que la réponse risque de changer au cours des prochaines années. Les choses évoluent rapidement. La bioéconomie commence à révéler son immense potentiel pour le Canada. Voici quelques chiffres étonnants. Le Canada représente 7 % de la totalité des terres émergées, ainsi que 10 % des forêts et 15 % de l'eau douce de la planète. Quelle que soit la façon de compter, nous sommes plus que riches. De plus, notre infrastructure agricole et sylvicole est fonctionnelle, productive et efficiente. Ces secteurs sont des points d'exportation,

qui laissent à penser qu'un détournement à des fins domestiques ne causerait aucune perturbation, si des changements de cap venaient à se produire.

Notre potentiel pour réduire le smog, notre faible dépendance au pétrole étranger, les avantages de la communauté rurale et l'amélioration de l'économie générale du Canada sont encourageants. En même temps, nous devons nous préoccuper des impacts négatifs possibles, notamment l'exploitation des ressources naturelles, l'anéantissement des forêts et l'affaiblissement de la viabilité des forêts et des terres agricoles, ainsi que la diminution qualitative et quantitative de l'eau. Ainsi le progrès est-il une affaire d'équilibre.

Continu page 22

La bioéconomie naissante fera-t-elle partie de votre avenir?

suite de page 21

Produire et traiter la biomasse

La bioéconomie est axée sur la conversion de la biomasse des cultures, des forêts et des organismes en carburants industriels ou en produits matériels (plastique, produits chimiques, etc.). Son objectif est de maximiser durablement la production de biomasse et de convertir ensuite de façon efficiente l'énergie qu'elle contient en énergie ou produits utilisables. La récolte de la biomasse n'est pas un phénomène récent. Il y a 200 ans, le captage de la biomasse permettait déjà de répondre à la demande énergétique. Trente pour cent des terres agricoles cultivées était consacré au « carburant » qui faisait fonctionner les machines agricoles (chevaux et boeufs), fournissait chaleur et abri, vêtements et outils.

Notre rôle dans l'agriculture sera de produire, entreposer et transformer la biomasse en d'autres produits, et ce, de façon durable. La production de biomasse se résume à recueillir efficacement et durablement l'énergie diffusée par le soleil. La production des cultures traditionnelles (maïs, soya et céréales) et nouvelles (entre autres, panic raide, miscanthus, roseau, saule) fournira la base du carburant, des produits chimiques et des autres matériaux. Le mode d'évolution de notre agriculture dépendra des secteurs bioéconomiques que chacun choisira.

Le développement de la communauté rurale

Dans tous les ordres de gouvernement, il existe une conviction que la bioéconomie peut jouer un important rôle de développement de la communauté rurale. En Europe, où les systèmes de digestion anaérobie évoluent rapidement pour fournir de l'électricité et du gaz biologique à des secteurs économiques plus importants, les fermiers ont vu leurs revenus et leurs profits augmenter. Des emplois non agricoles se sont développés dans des régions rurales afin de répondre aux besoins de la nouvelle bioéconomie dans les fermes. Les impôts et la population ont augmenté, ce qui a contribué à stabiliser et développer les villes et villages ruraux.

Les avantages pour les producteurs primaires

Pour que les producteurs tirent avantage de la bioéconomie, ils devront savoir mieux exploiter la « valeur ajoutée » de leur production de biomasse. Au siècle dernier, en ce qui concerne l'alimentation, les aliments pour animaux et les fibres, nous avons surtout été des preneurs de prix. Les graines, le bétail et

les autres produits fermiers génèrent beaucoup de valeur ajoutée, mais la plus grande partie de cette valeur bénéficie à d'autres. Nous devons faire en sorte que la plus grande part de cette valeur ajoutée bioéconomique profite aux

producteurs primaires. Cela signifie que nous devons nous impliquer dans la vente directe de produits finaux au consommateur. Cela pourrait aller jusqu'à la production et la vente d'électricité au réseau de distribution officiel. Les matériaux bruts pourraient être pré-traités à la ferme ou dans des régions rurales, afin de générer plus de matériaux à valeur ajoutée, comme l'extraction de résines ou d'amidon en tant que composants de fabrication des plastiques.

Optimiste mais ambitieux

Je n'ai pas fourni beaucoup de détails sur la façon dont la bioéconomie devrait se développer. Mon objectif est ici de vous donner une idée des prochaines étapes. Je vous encourage à vous pencher sur le sujet et à vous informer. Dans d'autres bulletins, je reviendrai plus en détails sur certains thèmes.

Malgré les récentes difficultés qu'a rencontrées le secteur agricole primaire, je fais preuve d'un optimisme prudent quant aux grandes possibilités de ce domaine. Mais je suis également réaliste face au travail restant à accomplir pour conquérir cette valeur potentielle. L'intérêt que manifestent les partenaires du BIOCAP, notamment les principales entreprises mondiales, les gouvernements, les industries et les producteurs technologiques, envers les occasions offertes au secteur agricole, est encourageant.

Pour obtenir plus de renseignements sur BIOCAP et la bioéconomie, consultez le site www.biocap.ca.



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Algoma Soil & Crop Association Recognizes Glen Tulloch

Glen started farming on his own when he and Della bought the home farm in Dayton from Glen's dad, Maxi, in 1959. This is the farm on which he was born and raised and which he still owns.

During most of Glen's farming career there were two main general farm associations in Algoma. They were the Algoma Cattlemen's Association and The Algoma Soil and Crop Association. Both, as you all know, are local chapters of provincial associations.

Glen was active at every level in both organizations. He was chairman of the local Soil and Crop (this organization) for several years and he was chairman of the Cattlemen's, again for several years.

At the provincial level in the OCA he was on the OCA executive committee during much of the '70s and into the '80s.

On the provincial scene, in Soil and Crop, he represented Sudbury, Manitoulin and Algoma Districts on the provincial board for quite a few years.

Glen's fellow Board members at local and provincial levels all came to respect him greatly for his intellect, his honesty, his integrity, his devotion to the farmers he was representing, his common sense and, I believe, his ability to sum up a complex situation in a very few well-chosen words.

Glen was also chairman of the East Algoma Plowmen's Association and chairman of The Algoma Livestock Co-operative Sale.

He was also director of the Iron Bridge Agricultural Society.

Glen never sought leadership but accepted it willingly if he felt he could make a difference.

Glen is a master of reasoned persuasion and therefore it's no surprise that it was Glen who wrote a letter to the Minister of Agriculture in the '70s making a case for the establishment of a community pasture new Thessalon.

And then Glen, along with Len Kirby and Glen Currie served on the first pasture board. He was chairman of that board and remained active on it for most of his farming career.

I recall once in the .80s when some federal forestry researchers were crossing the Community Pasture, without permission, to access some adjacent lands. Several of us on the board happened to encounter them. After some initial awkwardness we arrived at a solution that would keep everyone happy.

As we were parting the somewhat humble and apologetic scientist asked what would happen if he should touch the electric fence by mistake.

Glen answered in his most serious manner, "Most people get up again."

There is only one insurance company with it's head office in Northern Ontario and that's, of course, Algoma Mutual Insurance

Algoma Soil & Crop Association Recognizes Sid Collins

Sid, we are here today to recognize the work of an area pioneer in agriculture. We know you played an important part in the development of agriculture in this area. Also we know that from the feedback of several long time farmers that you realized the need to improve our land and how to take steps so that we leave it to the next generation in even better condition than we found it.

We have been reminded that you actually built the first lime spreader that was ever in this area. Later, you facilitated, thru your work with the Soil and Crop Association, the acquisition of a manufactured spreader for use by the Algoma farming community. This lime spreader is still in use as of today.

We want to point out that this all occurred long before there was any talk about the environment or conservation. Our members past, present and future continue, and will continue to enjoy the fruits of your labour. This was and is a very practical way to encourage good stewardship of the soils in our area. We are grateful for this.

Continued on page 24

Co. started in Sault Ste Marie in 1899.

Glen served on the Board of this company for about 12 years, several of them as Chairman on the Board and President of the Company.

He served on Municipal Council for "Day and Bright" back in the '60s and again in the '90s. During the intervening years, he was road superintendent as was his father before him.

I recall a municipal committee meeting a few years ago that was being chaired by Glen. We were reviewing a document that had the work Mississagi spelled several different ways. This didn't bother Glen at all but it sure did a lady on the committee.

Glen kept trying to keep us focused and after a while he said to the lady, "You're just like my wife...she can spot a spelling mistake a mile away, but 200 cows can get out and go down the road and she can't even see a track." The lady re-focused.

Glen has been on the Sowerby Hall and Heritage Board for many years and is still active on that board. Whenever there's some volunteer work to do at the hall Glen is usually the first to offer to help, the first to arrive and the last to leave.

Something generally not known about Glen is that he was a "house husband" or "stay at home Dad" for three or four years when his two youngest were pre-schoolers. Della

Continued on page 24

Breaking Ground

(in Northeastern Ontario)

Algoma Soil & Crop Association Recognizes Sid Collins

Continued from page 23

Also, we must say a word of appreciation for your involvement in our local association - about a quarter of a century ago you were elected the president of this very volunteer group. I believe that Roger Fremilin took over the reins from you, and very much appreciated the ground work that was laid. As a volunteer we want to thank you for the hours that you poured into this group. Sometimes, it may seem like volunteers are often passed over or missed. Was all the work worth it? Did anyone really appreciate it?

The answer is YES! We do appreciate it and continue to enjoy the benefits. Sid was always a resource person you could turn too. Why? Because probably Sid had done it before.

Some of Sid's accomplishments are:

- Growing good crops, raising livestock, drilling wells, tending to sick livestock, sawing lumber, draining land, cutting timber, building houses or barns, fixing things when parts were too expensive, fabricating equipment, trapping, and being a friend to many. These are just few - the list could go on and on.

On a personal note... Sid, thanks so much for your help to the Soil and Crop Association and to hundreds of area farmers.

Please accept this AWARD OF MERIT as token of our appreciation.



Algoma Soil & Crop Association Recognizes Glen Tulloch

Continued from page 23



got a chance to go back to teaching, so Glen stayed home with Sheila and Marnie until they started school.

Those of us who have known and worked with Glen have been exposed to a wonderful example of someone, who, with good humour and tremendous determination, gives generously of himself at every level to make his communities, large or small, from Canada to Dayton, better places to live.

Jim and Birgit Martin Outstanding Young Farmers Northern Ontario Honouree

Jim and Birgit Martin of Gore Bay were nominated for the Outstanding Young Farmer Award for Ontario and competed in Ottawa in late March for the Ontario title where Harry and Leony Koelen, hog farmers from Paisley Ontario won the right to move on to the national event. Canada's Outstanding Young Farmers Program begins each year with the nomination of farmers at the local level. These honourees compete in their respective region across Canada for recognition as a Regional Outstanding Young Farmer. All Regional Honourees attend the national event and compete for the title of Canada's Outstanding Young Farmer. Jim and Birgit were among six young farm couples from across Ontario to be recognized at the Ontario event for their outstanding accomplishments. Jim and Birgit's dedication, passion and success is an inspiration.

Jim and Birgit with their two children operate a beef cow/calf herd of 150 cows on 773 acres near Gore Bay, Manitoulin Island. They produce pre-conditioned calves, finished cattle as well as doing some custom feeding. Jim and Birgit were attracted to this region by the availability of reasonably priced land for beef production. They strive to keep their operation as simple as possible and to grow their farm so



that it will be economically viable for them and also their children in the future so they only have a small compliment of equipment. Their cattle live outdoors almost permanently under a rotational grazing management and they graze as late into the fall or winter as possible with stockpiled pastures. In 1999 they entered into a venture with Sprucedale Agromart Ltd., a crop inputs retailer. A crop inputs and general farm supply facility was built on the farm to serve the farming community. This business allows them to support their family as the farm grows and gives them access to the most current crop production information. Jim and Birgit have faced many challenges but none have been insurmountable. They minimize their risk of producing only one product of the typical beef cow-calf operation by diversifying into custom feeding, cash cropping and selling into numerous markets. The depressed cattle markets during the BSE crisis prompted them to market a large portion of their cattle as finished beef. To add value, they began selling cuts at the farmers' market and through local restaurants. They sold into the local freezer trade and began supplying local and regional butchers with sides of their own "Black Angus Beef". The Environmental Farm Plan has had a tremendous impact on their operation. Most of the areas of improvement are related to water and woodland resources and the program has been a valuable financial resource for completing some major projects. Because Manitoulin is one of the driest regions in Ontario, moisture conservation is critical and conservation tillage is important. Both Jim and Birgit take active roles in the community. Jim is a director for Northern Ontario in the Ontario Cattlemen's Association and Birgit has been a Certified Crop Advisor since 1998. She is working towards certification as a Nutrient Management Planner.

For more information about the Outstanding Young Farmer Program go to www.oyfcanada.com.