



SASKATCHEWAN AGROLOGIST



**Strength in Saskatchewan
Organics**

Today's Ag Industry:

*Meeting the Challenges of Tomorrow
and Responsible Stewardship*

2006 SIA Conference and 61st Annual Meeting

April 5-7, 2006 • Gallagher Centre, Yorkton

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- **HACCP: What is It? Implemented? Live with It?**
- **EFPs and Their Effect on Agrologists**
- **Novel Ag Diversification Ideas**

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President's Message . . .

by **George Lewko** PAg
SIA President

“A National Council . . .”

The future of Agrology in Canada has just begun to shine. What we have needed for a long time is a National Council of Provincial Institutes of Agrologists. In the past, we always hoped that The Agricultural Institute of Canada (AIC) would fill this void. In my opinion, it never fulfilled this role very well, and with the recent changes to AIC, it is no longer an organization for Agrologists in Canada. The SIA will continue our Associate membership in AIC for the time being, so long as some value can be shown.

What we've needed is an organization that truly represents all of the Institutes of Agrologists in Canada. AIC was never able to get a membership commitment from L' Ordre des Agronomes du Quebec which represents over 3,000 Agronomes (their equivalency of PAg) and with 5,500 Agrologists across the rest of Canada you can see the impact they could play on issues related to the profession. During the AIC Conference in Quebec City in November 2005, seven Executive Directors of Provincial Institutes or their representatives met with the help of Human Resources Development Canada, to begin talks on labor mobility of Agrologists amongst the various provinces. Quebec was in attendance and it was great to have their input into the discussion. The idea of a National Council was raised and received positive support from all the parties. I believe that a national council could go a long way in assisting the Atlantic institutes in particular. These institutes are relatively small when compared to the other provinces and it is important to help them play a role on the national scene.

I believe a National Council should:

- Have all Provincial Institutes as members.
- Share information and discussion among members.
- Use the combined experiences (under their provincial Acts), to help other Institutes.
- Set National Standards for Professional Development.

- Facilitate ease of transferring Agrologists between provinces.
- Help all Institutes to move towards Right to Practice legislation (like Saskatchewan), instead of Right to Title.
- Set National Standards on admissions to become a PAg or Agronome.
- Be the body that coordinates the Colleges of Agriculture accreditation process.

AIC has coordinated the Colleges of Agriculture Accreditation Program through one full cycle of Canadian universities (seven) that requested accreditation. The Accreditation Committee is ready to start the cycle again. This program simplifies the entrance requirements for Provincial Institutes as all graduates from accredited programs can be easily admitted into Institutes of Agrologists. Other programs can then be held under similar light, to see if they would meet our requirements. During the last conference call regarding the accreditation process, it was mentioned that a National Council was being considered and

there was a consensus that once this Council was formed, that the Colleges of Agriculture Accreditation Program would move under it, away from AIC.

So after many years of trying to get AIC to be our National body, we are going to create what we need, a National Council of Provincial Institutes of Agrologists. It's what we need and I believe there is a will to see it come into being.

This is my last President's Message. My term as your President will end in April. It seems that one just gets started and then you have to pass on the gavel. I have enjoyed my year as your President, getting a chance to meet many of you, working with Council and representing your interests. I am looking forward to my continuing role on Council this time as Past-President. I also want to remind you that the SIA Conference and 2006 Annual Meeting will be held in Yorkton April 5-7. The Yorkton Branch has been working hard to organize a first rate event. I hope you are planning on attending. □

Status Changes of SIA Members as of December 2005

AAG to PAg

- Christopher Bettschen, PAg
- Kevin Farden, PAg
- David Fuller, PAg
- David Larsen, PAg
- Michael Steckler, PAg
- Chantal Stumborg, PAg
- Bradley White, PAg

AAT to AT

- Michael Tyhy, AT

New PAg – Direct Entry

- Sabine Banniza, PAg

New AAg

- Wade Annand, AAg
- Thomas Barrie, AAg
- Neil Booth, AAg
- Blaine Davey, AAg
- Mark Ferguson, AAg
- Leah Froehlich, AAg

- Lynne Girardin, AAg
- Trevor Herzog, AAg
- Linda Matthews, AAg
- Murray Nelson, AAg
- Ryan Regush, AAg
- Gail Renkas, AAg

Transfer In – AAg

- Lubica Paparcikova, AAg
- Marilynne Prejet, AAg
- Abdus Shakir, AAg

Reinstatement - PAg

- Bruce Coulman, PAg

Leave of Absence

- Richard Armstrong
- Mary Beckie
- Julian Bodnar
- Kari Burnett
- James Caughlin
- D. Kirk Elliott

- Gerald Gross
- Oswald Henry
- Brad Jensen
- Rachel Kraynick
- Amanda Kroeker
- Allana Lewchuk
- Robert Linnell
- Don Lysyshyn
- Stuart McDowell
- Elaine Meachem
- Daved Meakin
- Lorne Pincemin
- Gary Smith
- Michael Steckler
- Daryl Tumbach
- Krista Wilde
- Annette Zatylny

Resignation

- Stewart Adam
- Norman Ballagh
- Kenneth Brice
- Philip England

- Gordon Hamilton
- James Pratt
- Thomas Rogers
- Dale Sikora
- R. Blake Whaley

Transfer Out

- Terry Craig, PAg – to AIA
- Gavin Graham, PAg – to NBIA
- Mark Lauder, PAg – to AIA
- Simone Levy, AAg – to AIA
- Linden Lundback, PAg – to AIA
- Steven Pauls, PAg – to BCIA
- Bodhinayake Waduawatte, PAg – to AIA

The Executive Director's Report



Calendar of Events

- Feb. 13-15** *North American Consulting School, Langley, BC*
www.consultingagrologists.com
- Feb. 15-16** *Organic Update, Prairie Ursuline Centre, Bruno, (306) 369-4186*
- Feb. 24-26** *SK Food Processors Association/ SK Meat Processors Joint Conference, Travelodge Hotel, Saskatoon*
www.sfpa.sk.ca/upcoming_events.html
- Feb. 28** *Engaging Rural Clients II, West Harvest Inn, Regina, (306) 352-0472*
- Mar. 2** *Engaging Rural Clients II, Travelodge Hotel, Saskatoon, (306) 953-2796*
- Mar. 2-3** *Soils and Crops Workshop, University of Saskatchewan, (306) 966-5586*
- Mar. 8-10** *Integrated Solutions to Manure Management, Convention Centre, London, ON*
www.istmm.com/Home.htm
- Mar. 31, Apr. 1-2** *Gardenscape, Prairieland Park, Saskatoon, (306) 931-7149*
- Apr. 5-7** *61st SIA Annual Meeting and Conference, Yorkton, (306) 242-2606*
- May 26-28** *Canadian Agricultural Economics Society Annual Meeting, Concordia University, Montreal, QC*
www.caes.ca/conferences/annual_meetings2006_Montreal.cfm
- May 28-30** *CIFST/AAFC Joint Conference, Montreal, QC*
www.cifst.ca/default.asp?id=986
- Jul. 16-19** *2006 Conference and AGM of the Canadian Society of Bioengineering, Edmonton, AB*
www.csae-scgr.ca/

Bruce Hobin ^{PAg} SIA Executive Director

President Lewko's article talked about the meeting of Executive Directors and Registrars that was held in Quebec City in conjunction with the Agricultural Institute of Canada's annual meeting and conference in November. The meeting was dedicated to discussing a number of key issues related to the profession of agrology and agrologists. It was supported by Human Resources Development Canada because the discussion had a lot to do with labor mobility of agrologists and acceptance of immigrant credentials. I was pleased to see the commitment from those who attended. It was unfortunate that not all provincial institutes were able to participate. I feel that their input is definitely required to get a true national perspective.

The three main themes that were identified at our meeting last April in Saskatoon made up the agenda. The question of credentials that allow individuals to be admitted into the profession was discussed. With Colleges of Agriculture offering more degrees than just the BSA or BSc (Ag) now, would all of the degrees be accepted? What about the newer universities that now offer an agriculture-science type of degree? Will their graduates be eligible for membership? Who should conduct the accreditation of these Colleges? How will international degrees be assessed? OIA expressed that this is a major issue for them. The question that arose was does any institute have the right to reject someone who would be admitted by other institutes? The answer was yes provided that institute has a set of criteria that fairly evaluates the individual.

The second theme looked at the articling agrologist program. Not all institutes have a formal articling program. And for those who do, there are differences among them. The discussion looked at the various articling requirements, what was common, what was different and how are articling agrologists dealt with if they transfer to another institute while in the midst of their articling program. Can there be some harmonization so that the transfer of an articling agrologist can be as seamless as possible and that it can be expected that all articling programs have some common content?

The final discussion looked at professional development (PD) for agrologists. In some provinces it is mandatory, while for others it is optional. How is PD evaluated? What constitutes PD? What happens to those who fail to meet PD expectations? As one might expect, there were almost as many approaches to PD as there were institutes.

The results of the discussions did a lot to indicate that all institutes face similar issues and that the sharing of information amongst those attending was helpful. This type of dialogue has to continue. The consensus was that the EDs and Registrars have to meet regularly and work towards creating an understanding of who is an Agrologist. This is where the discussion of forming a national Council arose. Many other professions have a national body that works to discuss common issues and problems, to help harmonize the professional regulations and to promote their profession on a national basis. For the profession of agrology, more needs to be done and I feel that there is willingness on the part of those institutes that attended to carry on the process.

On a matter closer to home, this year SIA began accepting credit card payments for member's annual professional fees and admission and reinstatement fees. A number of members have taken advantage of this policy. For your information, 147 members used either their Master Card or Visa to pay for their 2006 professional fees. Please note that you will also be able to use your credit card to register for the upcoming SIA Conference and AGM in Yorkton. □

Strength in Saskatchewan ORGANICS

Saskatchewan leads Canada in organic production. Organic management is knowledge intensive, and depends on long-term planning and management in partnership with nature. Organic systems do not rely on energy intensive methods of synthesizing fertilizers, and recent studies have suggested that organic systems have significant benefits from increased carbon fixation and sequestering.

by **Brenda Frick** PhD, PAg

Saskatchewan leads Canada in organic production. More than a third of organic farmers in Canada call Saskatchewan home as indicated in the *Canadian Organic Grower* (Winter 2006). This is more than in any other province, more than in Quebec, Ontario or British Columbia. Organic farmers in Saskatchewan now farm 60% of the land under organic production in Canada. Organic grain production in Canada is valued at more than \$130 million with most of that being produced in Saskatchewan.¹

So what does "organic" mean? Organic production is often characterized as crop production without synthetic pesticides or fertilizers and livestock production without hormones or antibiotics. Increasingly it is known as farming without genetically modified organisms (GMOs). Although GMOs and the above sorts of inputs are not permitted under organic production, organic is much more than a simple list of "thou shall not". Organic management is knowledge intensive, and depends on long-term planning and management in partnership with nature. It includes pro-active techniques that foster fertility, diversity and biological activity, as well as reducing the occurrence of problematic levels of "pests". For livestock, production standards allow animals adequate space to display natural behaviors and access to outdoors.

The draft Canadian organic standard states that "Organic agriculture is a holistic system of production designed to optimize the productivity and fitness of diverse communities within the agroecosystem, including soil organisms, plants, livestock and people. The principal goal of organic agriculture is to develop productive enterprises that are sustainable and harmonious with the environment."²

At present, the Canadian Organic Standard is a voluntary one. This is about to

change. An intensive process is underway in Canada to create a mandatory standard that finds consensus in the organic community. This will benefit Canadian organic producers who export to other countries, particularly Europe who want to deal with a single national standard. It will also set the standard for the use of the term "organic" on products sold in Canada, giving Canadian producers of certified organic products more equitable access to local markets.

The current lack of a mandatory national standard does not mean that organic production is unregulated. If a product is "certified organic," it was grown and processed using organic production and processing systems. The body that certifies the process has a set of standards and a mechanism to see that they are met. This includes an extensive paper trail and regular inspections.

Certification bodies are accredited with a number of organizations. For instance, if the body is accredited with the United States Department of Agriculture (National Organic Program), as most are, then the government of the United States has reviewed their standards and protocols and found that they meet or exceed their requirements for organic production. Accreditation is possible through various trading parties such as the American NOP, European EU 2092/91, Japanese JAS, and through institutions such as IFOAM

(International Federation of Organic Agriculture Movements).

If the product is labeled organic, but is not certified, the definition of organic is up to the producer. Usually it means that herbicides and insecticides were not used, or for livestock, that hormones and antibiotics were not used. For people who know and trust the producer, this may be enough. Once the Canadian organic standard becomes mandatory, only certified organic products will be allowed to display the label "organic" in the Canadian marketplace.

Saskatchewan organic farmers are part of a vital and growing community. Fueled by consumer demand, the Canadian organic retail market is estimated to grow at 20% per year, with projections of \$3 billion in retail sales in 2005³. Are organic consumers a niche market? If this is so, it is a niche that is increasing rapidly. A recent study indicates that organic buyers are a diverse group, with only 10% of



buyers in what has been considered the "core" or "tree hugger" group.⁴ Consumers flock to organic products for a number of food quality, health, environmental, and social reasons.

Organic consumers tend to be very conscious of quality, especially taste. Often organic sales are dependent on some additional processing, be it seed cleaning for commodities, trimming of produce or culling of livestock. Are organic products expensive? Many organic producers argue that organic products are not over priced; conventional agricultural products are tragically under-priced. Conventional products, particularly commodities, are traded in a manner that does not consider the costs of production in the price equation – as average farm income strongly indicates. This is certainly also a risk for organic farmers, though they have largely avoided it thus far.

Are organic products healthier? Some studies suggest organic vegetables can have higher mineral, vitamin or antioxidant levels or lower mycotoxin levels.^{5,6} Consumers often equate organic with "pesticide free." Organic farmers do not use synthetic pesticides and they reduce accidental contact with pesticides by maintaining buffer strips, registering and posting their land, managing run-off and soil and water movement and maintaining vigilance. Logically this should reduce the pesticide load, even if some exposure occurs. A comparison of the urine of children who ate organic produce with that of children who ate conventional produce found that eating organic reduced the level of organophosphates from above to below the United States Environmental Protection Agency's guidelines.⁷

Some people turn to organic to avoid GMOs, either from health concerns, or as a boycott of the technology. GMOs are a particular problem for organic producers because any level detected in organic product can cost a sale, especially into Europe.

Are organic systems better for the environment? Recent studies have suggested that organic systems have significant benefits from increased carbon fixation and sequestering.³ Organic systems also do not rely on energy intensive, and thus carbon dioxide producing, methods of synthesizing fertilizers. Critics suggest that organic farming is too dependent on tillage and contributes to soil erosion. Although organic farmers adopt many soil saving techniques – direct seeding, seeded waterways, cover crops – additional ongoing research is required to improve organic systems.

Organic agriculture is also being recognized by the scientific community. Studies published in *Science*⁸ and *Nature*^{9,10} have shown organic systems can provide environmental benefits such as reduced energy consumption and greenhouse gas emissions while maintaining economic yields. Organic research is well established, particularly in Europe. On the prairies, organic research is conducted by the

Universities of Alberta, Saskatchewan and Manitoba and by Agriculture and Agri-Food Canada.

In 2001, OACC, the Organic Agriculture Centre of Canada was established in Truro, NS, to strengthen the science and practice of organic agriculture. A prairie office of OACC was established in 2003 at the University of Saskatchewan to better serve the needs of organic farmers on the prairies. At the prairie office, we facilitate research by collaborating with researchers and farmers, by conducting on-farm research, and by communicating research results. We support the organic community and act as a liaison between organic and research communities. □

Brenda Frick, PhD, PAg, is the Prairie Coordinator for the Organic Agriculture Centre of Canada. The author welcomes comments. You may contact her as follows: c/o Plant Sciences Department, University of Saskatchewan, 51 Campus Drive, Saskatoon, Saskatchewan S7N 5A8, Phone: 306-966-4975, Fax: 306-966-5015, Email: brenda.frick@usask.ca, Web: <http://oacc.info/>

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SIA News . . .

Call for Nominations, SIA President-Elect

The Nominations Committee is seeking nominations for the position of President-Elect of the SIA for 2006. The deadline for submitting a nomination is **Tuesday February 28**. Should more than one nomination be received, the SIA will then hold an election for the position in early March.

The nomination must be accompanied by five signatures of Professional Agrologists who are the nominators. In addition, the person being nominated must also provide his/her signature indicating that he/she is accepting the nomination for President-Elect. Forward the nomination to the SIA Office.

The individual, who is successful, will then assume the position of President-Elect of the SIA at the 2006 Annual Meeting at Yorkton.

New Broker for Errors and Omissions Insurance

The Agricultural Institute of Canada has announced that in order to provide better service and additional options for their members it has changed insurance brokers for the Errors and Omissions/Commercial General Liability Insurance. The AIC has appointed AON Reed Stenhouse Inc. as the new service provider.

The AIC's association with the previous broker, Marsh Canada, has come to an end. AIC wanted its members to note that if you currently participate in the liability insurance program, coverage remains in full force and effect.

Direct any inquiries to AON Reed Stenhouse Inc., 71-1525 Carling Ave., Ottawa, ON K1Z 8R9 phone: 1-800-267-9364.

Agrologists in the News

PAMI has announced that as part of its operational responsibility of the Western Beef Development Centre near Lanigan, it has hired three staff. **Bart Lardner, PAg** was hired as senior research scientist, **Kathy Lang, AAg** is the beef economist and **Leah Froehlich, AAg** is the beef research technician.

Former Registrar Passes

Rose Melville-Ness, who was the Registrar for the SIA (1977-78), passed away on November 13, 2005 in Saskatoon. Rose (nee Frei) was born in Leader on May 22, 1918. She worked for the Saskatchewan Wheat Pool for 35 years. She married Tom Melville-Ness in 1972 and moved to Saskatoon. She assisted Tom with his Agro Records business following his retirement from the Western Producer. When Tom Melville-Ness, who was also the SIA Registrar, passed away in 1976, Rose assumed the position of Registrar for two more years. Rose Melville-Ness was a strong community supporter volunteering her time from the Cub Scouts to the Saskatoon Symphony Orchestra.



New Organic Cleaning and Processing Mill in Saskatchewan

by Sherrilyn Phelps PAg, CCA

What started out as a discussion around the kitchen table in 2002 finally became a reality in February 2003 as a group of organic producers joined together to form the Northwest Organic Community Mills Co-operative Limited. This new generation co-operative was established to get more value out of grain production and to allow the producer to have more control over the process. The group wanted to get away from just selling grain to the 'big guys' and knew that they must be able to get more for their grain by adding value through processing. Thus, the Co-operative was established and a facility was purchased at Maymont (located about 90 km NW of Saskatoon on Highway 16).

Brian Reiley, plant and marketing manager, explains how the mill was constructed. "It was built through sweat equity from members with minimal debt and we were able to use refurbished equipment to keep costs at a minimum. To try out the cleaning equipment, we cleaned seed for planting in May of 2004. From there, we decided what needed to be changed and spent the summer putting the final touches on the plant; and in November we really got started cleaning when we hired Jeffery Beaudoin to operate the cleaning plant."

Over the past year the plant has cleaned in excess of 350,000 bushels of organic grains but has the capacity to clean up to 700,000 bushels annually with a steady supply of good quality grain. In addition to cleaning, the Co-operative also offers services such as bagging, container loading, intermodal loading, and rail car loading. Not only do they provide these services for producers, they also clean and bag grain for other brokers that deal in organics and have shipped products to the United Kingdom, Italy, Japan and the United States. The Co-operative offers marketing services not only to its producer members but to any organic producer as well.

Just recently, the Co-operative has added processing to its list of services. With the addition of a stone ground flour mill, the Co-operative now has the capacity to produce 1.3 million pounds of organic flour annually. The

flour types include whole wheat, buckwheat, barley, and rye. From the mill, they also have the byproducts from making flour such as bran and wheatlets that are also saleable products. Taking it one step further, they have developed multigrain cereal products, muffin mixes and pancake mixes that will hopefully be in stores in early 2006.

The Co-operative will be selling products under the name of "Old School Organics" as the facility is situated in what was once the old school in Maymont. They do have some products that they are currently selling at the plant and in some local stores in Northwestern Saskatchewan. These include small packages of whole grains such as flax and cereal grains as well as 10 kg packages of flour. The mill is looking at expanding its product line and is currently trying to source dehydrated organic fruit.

The Co-operative is made up of 59 producer members and approximately 100 investor members. There are nine directors on the Board that meet monthly. Organic growers may buy memberships at anytime for \$500 and delivery obligation shares at \$300 per 30 tonne allotments. The allotments are guaranteed for life but the Co-operative does realize that there can be extenuating circumstances, such as frost, whereby delivery is impossible because the production and quality just aren't there. Within the next year or so there may be an investment opportunity for the public as the Co-operative is planning to open a new share offering of preferred shares at some point in time.

Northwest Organic Community Mills Co-operative Limited has viewed the development of value-added organic products and marketing and market development as key components of the organization's long term success. To this end, the Co-operative has purchased and maintained a membership in the Saskatchewan Trade and Export Partnership (STEP). From an international perspective, the Co-operative has received a lot of interest from overseas buyers. In fact, they had a number of European buyers and members of Trade Missions from Canadian Consulates in Europe visit the mill in September of 2004. In addition, there have been a number of visits from a variety of international firms interested in doing business with the Co-operative.

This past November, with funding from the Saskatchewan Agriculture and Food Agri-Value Program, a small group of representatives from the Co-operative embarked on a learning experience of a lifetime. They set off to Europe to return the international visits and meet with new potential buyers. They also hoped to gain insight into the organic industry overseas to see what products would meet the needs of potential foreign customers.

Dayton Funk, an organic producer and Director on the Board, commented that they learned a lot in terms of what markets they can tap into overseas and what products to focus on. "The overseas markets are looking for grains that can't be produced there. No sense in trying to sell them low-protein wheat when they can grow it locally. The grains they are interested in are high-protein wheat, flax and lentils. The buyers prefer to buy whole grains versus processed products as they feel more confident in the quality if they see the whole grain." Dayton also commented that "Although there is a great potential for tapping into the European market, there is a lot we can do at home. Just getting our products on to the store shelves locally and into the larger centres, such as Toronto, would be a huge step forward."

The Co-operative will be meeting during the winter months to do some strategic planning which allows them to set some firm directions for the organization in terms of markets and products that they will be looking at for the future. Mark Richardson, Agribusiness Specialist with Saskatchewan Agriculture and Food in North Battleford has been integral in assisting the organization with its planning for the future.

Things to watch for in 2006 from this Co-operative include new products under the "Old School" brand, new markets overseas, HACCP certification, and potential for new share offering. For more information on the Northwest Organic Community Mills Co-operative Limited please call Brian Reiley or Judy Sherman at (306) 389-2118 or visit www.northwestorganicmills.com. □

Sherrilyn Phelps, PAg, CCA is a Crop Development Specialist with Saskatchewan Agriculture and Food based in North Battleford.

Organic Production Research in Saskatchewan

by Eric Johnson MSc, PAg

The number of organic research projects in Saskatchewan has grown substantially in the past decade. In the late 1990s, the Canada-Saskatchewan Agri-Food Innovation Fund (AFIF) provided the incentive to get it started. A component of the AFIF Special Crops Program was organic production research. Research dollars were allocated to the Scott Research Farm to initiate research in organic weed management. This was challenging as very little organic weed research was being undertaken at that time and it was difficult knowing where to start. We received some guidance from the research committee of the Saskatchewan Organic Directorate but most of our initial years were trial and error.

In addition to the AFIF program, the Saskatchewan Agriculture Development Fund has provided substantial funding support for organic research. Agrologists with Saskatchewan Agriculture and Food have been instrumental in identifying organic producer needs and communicating these needs to research scientists. This article will outline some of the major organic research initiatives underway in Saskatchewan.

Alternative Cropping Study

At the Scott Research Farm, the Alternative Cropping Study is a long-term research project that is evaluating the economic and environmental sustainability of three crop input systems (organic, reduced, high input). Each input system is interspersed with three levels of cropping diversity (low diversity, high diversity annual crops, and high diversity annual-perennial crops). The study employs a six-year cropping cycle and the project is expected to run for 18 years or three cycles. The second cycle is near completion. One of the main findings from the first cropping cycle was the comparison of economic returns. Organic systems had lower yields, but their economic returns were comparable to other systems if organic price premiums were received on half of the total production. Results from the first cycle are available on an Alternative Cropping Study CD that can be obtained from the Scott Research Farm or Dr. Gordon Thomas at the Saskatoon Research Centre.

Plant Breeding

More recently, crop breeders have been developing varieties that are suited for organic or reduced-input production. The Crop Development Centre in Saskatoon developed CDC Sonata, a tall, leafy field pea variety that is similar to the older variety Grande. Grande was competitive with weeds; however, it lacked powdery mildew resistance. CDC Sonata retains the competitiveness but also has powdery mildew resistance.

In cereals, CDC Cowboy is a barley cultivar that has been bred for

silage production under a low-input system. A breeding project is currently underway to improve the competitiveness of spring wheat cultivars. Spelt breeding is also underway as there is some demand for organically grown spelt. There is no need to improve the weed competitiveness of spelt because of its height, but growers would like to see it remain standing through the growing season!

A flax breeding/agronomy project led by Dr. Gord Rowland, PAg has led to the development of early flowering flax cultivars. The goal is to develop a cultivar that can be seeded late but maintain yield and quality. The late seeding will allow for weeds to emerge so they can be controlled with pre-seeding tillage.

Pest Management

In needs assessment surveys, managing weeds is always ranked as a high priority for organic growers. At Scott, we have investigated a number of mechanical techniques to control weeds during pre-seeding, pre-emergence, and/or post-emergence. None of these provide the same level of weed control as herbicides, but much has been learned about optimal timing and frequency of mechanical operations. There have been a number of trials on cultural management of weeds in crops such as oats that provide useful information to both organic and conventional farmers.

The Alternative Cropping System study at Scott has found that annual weeds such as common lamb's quarters and green foxtail are associated with organic systems. Weed surveys on organic farms have indicated that other annual broadleaf weeds such as wild mustard are particularly troublesome. The surveys also report that Canada thistle is the predominant perennial weed.

The major insect pest that organic growers deal with is grasshoppers. There are some cultural practices that growers can employ; however, most growers want some sort of acceptable control measure. Perhaps the bio-insecticide that has been effective in controlling locust populations in Africa has potential for controlling grasshoppers in organic crops.

Soil Quality / Nutrient Management

While weed management is considered a challenge by organic growers, one of their major challenges is the maintenance of soil quality and soil nutrients. Farm surveys conducted by Dr. Steve Shirliffe and Dr. Diane Knight at the University of Saskatchewan found that most of the organic farms had sufficient levels of N, K, and S; however all organic fields were deficient in phosphorus. The replacement of soil phosphorus that has been removed by cropping is the greatest challenge facing the sustainability of organic production. The most likely solution is livestock manure. There are research projects underway that are attempting to address the issue.

The Challenge for Research and Agrologists

At Scott, we have found organic research to be rewarding even though we have been skeptical about some of the studies that we have undertaken. In some cases, the skepticism turned out to be valid, while in others we were pleasantly surprised with the outcome. It has been a challenge dealing with some of the issues; for example, conducting research on both genetically modified crops and organic production has not sat well with many organic producers. However, it is important to maintain an active role in both production systems and preferably conduct research that is beneficial to all producers. Being involved in both conventional and organic research helps to maintain scientific objectivity and reduces any personal biases to champion one system over another.

For the practising Agrologist, it is important to be respectful of the growers' choice of production system. One can learn a lot from talking to organic producers, and they are always willing to share information with you. There are opportunities to provide education and extension programs for organic production. Agrologists need to provide guidance and input into programs and policies that facilitate the co-existence of both organic and conventional production systems in Saskatchewan. □

Eric Johnson, MSc, PAg is a researcher based at Agriculture and Agri-Food Canada's Research Farm at Scott.



Shown here, an inside view of the Northwest Organic Community Mills Co-operative Limited in Maymont, SK.

2006 Census of Agriculture

During the first two weeks of this coming May, every farm in Canada will receive a Census of Agriculture questionnaire. On May 16, farmers across the country will help create an up-to-date profile of agriculture in Canada by completing and returning a census questionnaire.

The farmer of the 21st century works in an industry that is becoming more and more complex. Farmers play many roles to operate a successful business: accountant, mechanic, carpenter, heavy equipment operator, and environmentalist. In addition to farming, an operator may also work off the farm. In short, farmers are busy people working in a dynamic and challenging industry.

The profile of Canada's farmers is different than the general working population. Census information tells us that farm operators have a higher median age than the comparable labor

force population of self-employed workers – 49 and 44 respectively. Moreover, the group of farmers under 35 years old poised to succeed this aging group is shrinking rapidly, representing only 12% of all farmers. Nearly 20% of self-employed workers in the general labor force are under 35. In the entire labor force, 40% of all workers are less than 35 years old.

Then there is the technology factor: Advances in irrigation systems, plant and animal breeding, biotechnology, disease control and soil conservation have made the farm more productive and efficient than ever before. Yet farmers in Canada are always looking for new opportunities because prices for most traditional farm commodities are in a long-term decline and, as analysis of census data indicates, many farmers are struggling to make a profit. New crops or new uses for existing crops

may offer interesting new opportunities for many farmers. The biotechnology industry is just one of the exciting areas that are seeing many interesting developments for agriculture – cereal grains to make into ethanol to add to gasoline and canola to make diesel fuel more engine-friendly are just two examples.

Agriculture is continually changing. The Census of Agriculture provides information on the many sides of this vital industry — from crop area being farmed to manure management to farm-related injuries. The data "snapshot" captured by the Census of Agriculture every five years highlights trends and new developments in agriculture. Although farms have been decreasing in number overall, down almost 11% since 1996, farms have been getting bigger. The average farm in 2001 was 676 acres, compared with 608 acres in 1996. Those farms with gross receipts of \$250,000 or more accounted for 13.8% of all farms in 2001, compared with 9.4% in 1996 (at 2000 prices). The 2006 Census of Agriculture will give us more information on how, or if, this is changing.

The farm industry, as a whole, benefits from census data in many ways. For example, agricultural producer groups are guided by data from the census when informing their membership about industry trends and developments; putting operators' viewpoints before legislators and the Canadian public; and defending their interests in international trade negotiations. Governments use them to make decisions about crop insurance, agricultural credit policies, transportation, market services and international trade. Census information also helps other businesses market their products and services to farm operators and is a valuable tool when making production and investment decisions.

Information gathered by the census is very important and Statistics Canada is legally required to conduct a census every five years. By the same law, Statistics Canada is required to protect the information provided on census of agriculture forms – privacy is a fundamental component of the census.

If you want to be part of the 2006 Census as an enumerator, you may apply online at www.census2006.ca or call 1-800-862-6381.

This information was provided by Statistics Canada's Western Region and Northern Territories Office in Winnipeg.

Regina Branch Activities

The Regina Branch is pleased to present the Greg Mitschke Memorial Scholarship to Stephanie Dreger of Ebenezer for 2005-06. Stephanie attended high school in Yorkton, graduating in 2005. She is presently enrolled in the College of Agriculture at the University of Saskatchewan. The Greg Mitschke Memorial Scholarship is a \$1000 award available to students who enroll in the first year in the College of Agriculture at the University of Saskatchewan. The purpose of the scholarship is to promote agriculture as a career choice, provide students with financial assistance and profile the opportunities in agriculture.

Shown below, left and centre, a program sponsored by the Rotary Clubs of Regina and co-organized by the SIA Regina branch, helps high school students from across western Canada learn about agriculture. Shown below right, Barry Rapp, PAg, a member of the Regina Branch, makes a presentation to the students.



A Proposal to Create a Certified Forensic Agrologist Designation

If you recall in the November 2005 *Agrologist*, Kari Nicolas, PAg wrote an article about the Certificate in Forensic Agrology soon to be offered by the University of Saskatchewan and Assiniboine Community College. For your information, this certificate will only be part of the process to attaining a Certified Forensic Agrologist (CFA) designation.

The concept of creating a Certified Forensic Agrologist (CFA) designation is the result of addressing inquiries from both farmers and industry professionals looking for individuals who could be hired as a third party independent assessor to investigate agricultural problems that cannot be resolved through the normal practices.

The questions that need to be asked are: what skills, abilities, knowledge and certification do these individuals need to possess that would permit them to offer their professional services to deal with these specific situations? This has led to the concept of creating a professional designation of Certified Forensic Agrologist. This individual would be recognized as having completed a specified list of requirements before they would be granted the CFA designation. A Certified Forensic Agrologist would then be able to promote their services to anyone who would be looking for an independent party to conduct an objective and fair investigation. A CFA would eventually become recognized as the standard required when conducting these types of investigations.

A proposal has been developed and is currently being circulated to the Western Institutes of Agrologists for comments. The proposal address-

es a number of points that need to be considered when establishing a program where an individual would be granted a certified designation.

For professionals to acquire a 'Certified' designation there are a number of requirements that are common in the certification process. In reviewing various 'Certified' designated groups, these requirements include:

- Basic level of education
- Experience related to the field
- An examination or certificate of training
- Adhere to a code of ethics
- Maintenance of certification
- Fees
- Governing Board

To meet the requirements for the CFA designation, the proposal recommends the following categories are to be developed:

Level of Education and Professional Status

To be eligible for the CFA designation, the candidate must be a Professional Agrologist (PAg) in good standing in any one of the ten provincial Institutes of Agrologists.

Experience

Eligible candidates must have a specified number of years of experience related to the practice of forensic agrology. The number of years has yet to be determined.

Examination or Certificate

The candidate will have had to successfully complete the Certificate in Forensic Agrology which is co-offered by Assiniboine Community College (Brandon, MB) and the Extension Division, University of Saskatchewan (Saskatoon, SK).

Code of Ethics

Because these candidates are required to be members of a provincial Institute of Agrologists, they would already have to adhere to their own Institute's Code of Ethics when conducting their business as a CFA. This would then guide them in their practice.

Maintenance of Certification

Those who receive their CFA designation are expected to keep current in the practice of

forensic agrology. To maintain their CFA status, these individuals will be required to do a minimum number of hours of professional development annually related to the science and practice of forensic agrology.

Fees

To operate and administer the CFA program, there will be associated costs. Fees will therefore be assessed on an annual basis to cover these costs and payment would be required in order for someone to maintain their CFA designation. These fees will be in addition to the professional fees they are required to pay their respective Institute of Agrologists.

Governing Body

To authorize the designation of the Certified Forensic Agrologist and to monitor the program, a Certified Forensic Agrologist Board would have to be constituted under the supervision of the provincial Institutes of Agrologists. Representation would come from each Institute that would support the CFA program.

The responsibility of this Board would be to:

1. Assess the credentials of applicants and approve who would be granted CFA designation.
2. Maintain the records of individuals who are CFA-designated; review their annual professional development activities; collect the annual fees; and direct any complaints or concerns about CFAs to the respective Institute of Agrologists
3. Monitor the CFA program to assure that the content of the Certificate in Forensic Agrology remains current and appropriate and that there are sufficient professional development activities to allow CFAs to acquire the required number of hours.
4. Work with those supportive Institutes of Agrologists to promote the CFA designation and to promote CFAs to the industry as credible investigators when dealing with those investigations that require the services of someone trained in forensic agrology.

As already mentioned, this is still in the proposal stage. Feedback from those who have been sent the proposal will assist on how the final structure and governance is created. □



Impact of World Trade on Agriculture in Kenya

The following article is taken from the notes made from the presentation to SIA Regina Branch November 24, 2005. Esther Bett, from Kenya, spoke to the SIA Regina Branch courtesy of the Canadian Food Grains Bank.

Esther Bett, Program Coordinator for the Resources Oriented Development Initiatives (RODI Kenya), has degrees in Agriculture and Home Economics. She is a "large" farmer in Kenya, where 80% of the population is engaged directly or indirectly in agriculture. Esther farms five acres. The average farm is about three acres; traditional crops are white corn, beans, vegetables; livestock include one or two cows for milk, three or four goats and sheep and five to ten chickens.

Kenya exports mainly coffee, tea and cut flowers. Some sugar is grown for local consumption. The cotton market collapsed because of subsidies and tariffs. Kenya borrowed money from the International Monetary Fund in the 1970s but spent it unwisely and of course now has to pay it back, undergoing major "structural adjustment" to come up with 32% of the budget for debt servicing. Agricul-

ture's share of the budget is 2.8% of which 80% is for department overhead and only 20% available for programs to support farmers.

World Trade Organization agreements opened markets in the late 90s to subsidized dairy from the European Union, subsidized corn from the United States and wheat in the form of Food Aid from the US. The cotton industry collapsed because of US subsidies. Poor countries had to reduce support for farmers to pay debt while those richer nations increased support for their farmers. International trade laws appear to discriminate against the farmers of developing nations. Many farmers quit farming as they could no longer afford to farm. They moved into the slums in the urban centres, living on food aid while their health and education deteriorated. Malnutrition for these people is high.

Migrant workers contribute to the HIV/AIDS epidemic. Women in the cities turn to prostitution saying they would rather die of AIDS in three or four years than hunger now. HIV/AIDS affects some 40% of people aged 15 to 45, mainly the poor. As they die, they leave children and elderly. This has become a major

agricultural issue as it is killing off the able bodied, leaving no one to plant and harvest.

RODI Kenya is a Non Governmental Organization which is an advocate for farmers in Kenya, and provides training to small farmers, prisoners and school children. Prisoners in Kenya, for the most part, are not the common criminal but are those too poor to afford a lawyer; people who got caught making home brew or hawking produce on the roadsides without a licence. Prisons are overcrowded, with very poor sanitation and prisoner hygiene. RODI trains prison officers how to train the prisoners in farming methods, personal hygiene and sanitation and dealing with HIV/AIDS including preventing infection or taking care of one's self when HIV Positive.

RODI and other NGOs also work at the village level, funded by different agencies. Groups of 20 to 30 villagers meet in homes to discuss issues and devise solutions to their problems. Each person working on these projects only reaches a few but they are slowly seeing a difference. RODI teaches better farming methods, such as "double digging" hard pan, close spacing vegetables in small plots and also provides clean seed for planting. Food is mainly "organic" simply because people can't afford chemical fertilizers or pesticides but they need to learn how to grow it better.

RODI also deals with HIV/AIDS by providing training to prevent infection, teaching how to take care of one's self when HIV Positive and in home-based care of people with AIDS. They also emphasize personal hygiene and sanitation. Many diseases are linked to the simple lack of cleanliness. Sanitation is a major problem as 80% of hospital beds are filled with water-related diseases and many which are related to human waste disposal. Some people still cannot link water quality to illness. RODI helps build bathrooms and dig wells. Washing one's hands is taught as is the value of boiling water or leaving a bottle in the sun to make it safe to drink. In some places, toilet paper is even provided by RODI when there is a local shortage.

Clean safe water is a scarce commodity. Women often walk four or five times a day for water totaling five or six km. Open wells are often polluted by animal and human excrement. RODI can line and protect a well for



Shown here, left, Esther Bett, Program Coordinator for the Resources Oriented Development Initiatives (RODI Kenya), and also a large farmer in Kenya, during her presentation to the SIA Regina Branch in November 2005. Esther appeared courtesy of the Canadian Food Grains Bank. On the right, Morgan Leigh, PAg from the the SIA Regina Branch presents Dave Meier, Saskatchewan Coordinator of the Canadian Food Grains Bank with a cheque of support. The Canadian Food Grains Bank provides food aid and development assistance to the people of Kenya and other countries.

about \$150, providing safe water for 50 families. They also assist families to set up water tanks to catch runoff from the roofs which is also safe to use. They have seen a dramatic reduction in illness when sanitation and hygiene are improved.

In rural Kenya, men go away to find jobs, thereby leaving women and children on the farms. The women produce vegetables which they sell and buy grain as white grain that is the staple food of the Kenyan diet. They may also sell milk or eggs. Ploughs are powered by cattle or donkeys. Vegetables are Kale and Cassava. Getting produce to market is a problem. Bicycles are common as are donkey carts. Sometimes farmers hire trucks or tractors to haul their products to town markets.

Tomatoes, as an example, are a profitable crop. One quarter of an acre of tomatoes will send a child to high school (\$700). And in Kenya, education of boys takes priority over that of girls. The average class has 80 to 100 students per teacher. There are not enough texts, pencils or desks to go around. In one school, 600 students used one toilet, resulting in high worm infestations and incidence of disease. RODI helped to build proper bathroom facilities and to rid the school of flies. This action cut infections by 40 percent. The children were healthier, grew taller, were more active and more eager to learn.

Food aid in Kenya is necessary in order to help feed some four million Sudanese refugees. Most food aid in Africa is needed as a result of wars. Sudan is the worst. Somalia has no government. Uganda and Rwanda are longtime problems. What RODI and other NGOs are asking for is help to build capacity in the developing countries, rather than just giving food. These people want to respect themselves and retain their dignity, not live on the dependency of handouts. The Canadian Food Grains Bank has been a strong supporter. Besides providing food aid, it also is involved in development work which has been greatly appreciated. □

Agri-Checkup Performance Measurement Framework

As part of celebrating its 60th anniversary, the Saskatchewan Institute of Agrologists is considering the development of an Agri-Checkup Performance Measurement Framework (Agri-Checkup). The objectives of this initiative include:

1. Utilizing the professional expertise of Agrologists and Agricultural Technologists to assist the agriculture and agri-business sector to move forward in realizing its future potential; and
2. Increasing public awareness about the professional role of Agrologists and Agricultural Technologists.

A report entitled “**SIA Agri-Checkup Performance Measurement Framework**” was presented to SIA Council in October 2005 by Tom Halpenny, AAT, Triticum Management Consulting and Ann Cooney, PAg, CAC, CooneyCo Consulting.

The review of existing literature and interviews with selected key informants revealed the opportunity for third party analysis and commentary on the performance of agriculture in Saskatchewan.

Key informants were asked to identify the **Generally Desired Characteristics** of a healthy agriculture economy. Their responses have been distilled into four broad categories:

- A Prosperous and Sustainable Farmgate (Production)
- Increased Value-added Manufacturing (Processing)
- Research that Improves Competitiveness (Knowledge and Research)
- Attractiveness of the Sector as a Career (Human Capacity)

The key indicators in each category that can be compared to other jurisdictions are identified in the report. Jurisdictions identified for comparison included Alberta, Manitoba, North Dakota, South Dakota, Montana, Canada, United States and Australia.

In discussion with key informants, the idea for the formation of a **Sustainability Index** emerged. A Sustainability Index measures the path of progress or the lack of it. A Sustainability Index provides a simple and clear way to measure complex indicators and is easy for people to understand.

The following graph demonstrates economic factors which can be measured by the Sustainability Index. It is consistent with the federal government’s current approach of advancing innovation as a focal point for improvement and growth for Canada’s economy.



Improvements in innovation (the introduction of new technology, the development of new products or markets) improve the productivity (output per person employed) which in turn improves the competitiveness of the industry (improved quality of product, reliability of supply, the fiscal health of the sector and technological adaptation, etc.) which in turn improves the economic sustainability of the sector.

Environmental and societal sustainability are also important areas to be measured. The data for tracking these topics is not readily available at this time. As data becomes generally available, SIA should comment on these items in the future.

The authors of this report recommend that the SIA consider developing a report focusing on the Sustainability Index – it is novel, unique and simplifies many different factors into one single value. This has appeal from a communications perspective, and has potential for other Institutes of Agrologists across Canada to adopt and participate in a check up of their province’s progress.

There are two different organizations in Saskatchewan that are examining or acting on this opportunity – Saskatchewan Agrivision Corporation (SAC) and the Saskatchewan Chamber of Commerce (through the report they recently published “What Makes Saskatchewan Tick – Primary Agriculture in the Saskatchewan Economy: Detailed Statistical Report”). SAC’s initiative is expected to be ongoing; however the Chamber’s initiative is not foreseen to be an ongoing annual update. There may be opportunities for the SIA to cooperate with other organizations in the future.

Agriculture, as a whole, tends to get a mixed public review in terms of support. This approach may help influence a positive public image of agriculture, profiling the sector’s sustainability. The SIA must also be prepared for negative statistical results to arise from this reporting, which may help to profile and justify the support for agriculture that often generates negative public reactions.

Currently, SIA Executive Council has formed a Subcommittee to explore future directions and to advance some of the recommendations. Key points include: researching the concept of developing a Sustainability Index, drafting a funding proposal, developing a short term and long term plan for the project and presentation of a report to the SIA membership at the annual meeting. □

Challenges of Food Sufficiency and Environment

by Rick Koller PAG, CAC

During the last year as the Agricultural Institute of Canada (AIC) developed their mandate and a voice for food sufficiency, environmental issues and food safety one can't help but be drawn to the main 2005 AIC discussion paper co-authored by Hugh Maynard, agr and Jacques Nault, agr and the meaning put forward by subsequent presentations and the press.

The purpose of this article serves to deepen the debate by pointing to missed ideas and strengths within that paper. The paper points out that 651 books and 11.5 million web sites have referenced sustainable agriculture and yet in the last 25 years achieving sustainable agriculture still remains elusive.

Let me provide the picture of world agriculture and the dilemmas we face. From 1950 to 2000 world population was multiplied by 2.4 times and food production increased by 2.6 times. All agriculture has not become fully

developed world wide as there are only 28 million tractors within the active agricultural population of 1.34 billion. There are 250 million work animals and 1 billion people work with manual tools only. Of these farmers, 500 million cannot afford selective crop inputs. Despite the lack of resources, the world production per worker in the last 50 years has increased from 1 ton to 2000 tons. These figures give cause for some optimism in being able to feed growing populations.

Over the years, Canadian farmers have enjoyed the rapid adoption of technology and the largest growth in food production per unit. In 2002 the Canadian bio-food sector contributed 12% of GDP and over half of the sector depends on exports to other parts of the country and other countries. This growth is at a rate greater than 10% per year. Like all industrialized areas of the world, this use of resources has had negative impacts on the ecology of the country. Ecological markers suggest that in the 1960s humans were using 70% of nature's yearly output; by the 1980s the world was using 100% and by 2000 it was now

over 125%. One study showed Canadian agriculture ahead of Europe in this area using less energy to produce food.

Most often the debate around sustainability pertains to the forces at work to keep things that work. For example, if the size of farm provided a quality life style for the farm family, then it should be preserved at all cost even though a change of operators may serve different expectations. Perhaps the best breakdown of the complexities around the elements of sustainability can be found in *Scale Change, Discontinuity and Polarization in Canadian Farm-based Rural Systems*, a paper written in 1997 by Michael Troughton, a rural geographer from the University of Western Ontario.

The five elements are agronomic, micro-economic, social, macro-economic, and ecological sustainability.

1. Agronomic Sustainability

Agronomic sustainability is the ability of the land to maintain productivity of food and fibre for the foreseeable future. Canadian farmers have become the world's greatest stewards of land. One of the pillars of the Agricultural Policy Framework (APF) is the implementing of environmental farm plans. This plan needs to tie the ecological component to income support policies as they now are in most industrialized countries. Yes, Canadian farmers are the best land caretakers but some think farmers don't want to talk about the care they give to land. Hence policy makers choose to make environmental farm plans secret. Perhaps people who design APF II will have the foresight to reward the farmer for environmental farm plans.

2. Micro-Economic Sustainability

Micro-economic sustainability refers to the ability of the farm to remain viable as the social production unit. Note that the statement makes no mention of farm size and is driven by the economic and social components. This element is subject to trend change over time. If the business income drops below the cost of production in the long-term, farm structural changes will occur. If farm income is subsidized to insure that all costs are covered, land prices will rise. Farm business is rarely profitable each year, rather the business survives through the

SIA Bylaw Changes

As a result of the proposed changes to the SIA standing committees, the SIA has to implement changes to its administrative bylaws. The changes will be presented for approval to the SIA Annual Meeting on April 6, 2006 in Yorkton.

Administrative Bylaws

Bylaw IV Committees

1. Standing and Special Committees
 - (a) Council shall establish the following standing committees at the first meeting following the annual meeting:
 - Admissions
 - Articling Agrologists
 - Awards
 - Communications (change to Public Awareness and Communications)
 - Education (change to Professional Development)
 - Issues (REMOVE will become a special committee)
 - Nominations
 - Professional conduct
 - Student Relations

short-term and shows investment returns upon sale of land. Changes to industry trends do not nor should not infer that the farms are not sustainable. The motivating factors behind change goes beyond traditional financial and social issues.

3. Social Sustainability

Social sustainability is the ability of rural communities to retain their population mix and their socio-economic function. All communities rural and urban change over time. Some are better at rejuvenating the population mix and the economic condition. An example of a large mistake made in the last few years by provincial governments was the demise of extension networks. This is at a time when farmers need help interpreting complex issues on the farm and in the community. In fairness to policy makers, the elimination of extension workers took place during a period when supervision and skilled extension management was at its lowest point. History of extension was such that it had to be renewed over time to stay current. The traditional model that was effective enabled workers to work with youth and families within communities. It was a type of leadership support that could be found no where else. In the United States, this is found through their land grant system and continues today. The service networks for rural support are now being replaced by numerous ad hoc program support staff systems in government and the private sectors, all with no fundamentals in extension work as change agents.

4. Macro-Economic Sustainability

Macro-economic sustainability as implied by the name is the ability of the country to produce food for domestic and foreign markets. Canadian farmers are able to supply twice as much product than what we need. This of course earns the country foreign exchange and contributes dramatically to the Canadian standard of living. In the context of this statement, agriculture therefore, deserves economic support. Also, in this broader context, one must be concerned about the degree with which a subsidy will drive up the price of land and just as importantly, the price of inputs. The price of inputs and land costs would also curtail the entry of those interested in getting into the business of farming and some would even argue this would enhance the rapid move out of farming. This is a move away from sustainability.

5. Ecological Sustainability

Ecological sustainability is the life support for the four systems mentioned above to operate. There are some policy issues to help guide this element. First, the support to farmers in this area is a function of society. Second, the support needs to be production neutral. Third, support has to be tested to insure trade rules are followed and fourth, all farmers can qualify

Professionalism and Ethics

Those who successfully completed the Professionalism and Ethics Seminar and examination on November 19, 2005 are:

- Juanita Allin, AAg
- Andre Bonneau, AAg
- Jeremy Brown, AAg
- Bryce Coates, AAg
- Jennifer Deeks, AAg
- Cory Fatteicher, AAg
- Bryce Geisel, AAg
- Shannon Gerrard, AAg
- John Goohsen, AAT
- Tom Halpenny, AAg
- Jason Hardy, AAg
- Christopher Jones, AAg
- Lynette Keyowski, AAg
- Tom King, AAg
- Trent Klarenbach, AAg
- Melissa Korol, AAg
- Joanne Kowalski, AAg
- Allison Krahn, AAg
- Kathy Lang, AAg
- Nancy McCrea, AAg
- Leslie McKenzie, AAg
- Allison Porter, AAg
- Randy Raimbault, AAg
- Clint Ringdal, AAg
- Jamie Salisbury, AAg
- Kyla Shea, AAg
- Jennifer Thomas, AAg
- Jenay Werle, AAg
- Graham White, AAg
- Lacey Wilton, AAg

and the farmer should be rewarded for any impact support provided to the farm's environment including environmental farm plans. If farms are not ready for certified farm plans endorsed by those conducting the review, then time needs to be granted in order for them to comply. With sustainable systems, no one should be forced to comply unless harm to the environment could come as a result of non-compliance. One idea proposed by an agrologist was that all wetlands now owned by farmers could be sold to the Crown with use conditions remaining with the farmer. The public would be assured by agreement that wetland stewardship is followed by the farmer. What's more, the Crown would pay a unique public tax to the local government for services.

One idea that resulted in the AIC getting significant media coverage was the concept of implementing a tax on food. The revenue from this tax could then be used to strengthen farm viability. The problem with this, apart from being very unpopular with consumers, is that given the nature of the business of farming highlighted above, with farming experiencing cycles of profitability and loss support would first double land prices and second, would serve to eventually double input costs. This was the case in countries with heavy subsidies. Not only did land escalate in price but equipment such as combines were twice the price in Canada.

After several rereads of the paper produced for AIC and the some forty presentations made at the November 2005 conference I've concluded that one of two things can be done.

A) Provide a program for farmers that is a true export enhancement program. This program must match all conditions set out in the United States' program. I must note however;

that the price of a steak in stores in large US cities is higher than in Saskatoon. The price of long-shelf bread is twice Saskatoon's prices. This is in spite of cheap domestic corn fed close to markets and millers who buy on the open market.

B) Canadian farmers receive no subsidy at all, and in effect be subject to the workings of a free market. The results will be hard to implement and the effects no more clear than the ones in the option mentioned above. Farms would operate, economic rent would find its economic level and input costs would likely drop for this difficult period, probably as long as five years.

After reviewing this discussion paper, before and after the release, I was not in favor of a tax on food. I saw it as a dangerous idea for trade, and as resource distorting for farmers. I did however; see it as useful to put this idea on the table to examine how bad it could be and to stimulate the discussion. I was however; disappointed in the response to the idea of the tax on food from just about everyone. People responded before they read the paper or before they sought to understand the difficulty farmers are having going into 2006. Most frustrating to me, was that few if any had any better ideas that might work. Since the paper, the tax idea is still out there but no alternatives have surfaced even during the past federal election campaign. □

The author hereby recognizes material used from the Paper "Big Farms, Small Farms" by Hugh Maynard, agr. and Jacques Nault, agr. prepared for AIC September 2005.

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