

# Forage Focus

July 2010

## Chapman Bros. named Red River Exhibition Farm Family of the Year

**C**ongratulations to the Chapman family! This farm operation still exemplifies the strong pioneering attributes initiated by founder George Chapman in 1903. The Chapmans are known for their ingenious inventions, their desire to try new things and their excellent communication with family, staff and neighbours.

The Chapmans have a long history of farming. George homesteaded a section of land in the Plumas area and in 1917 helped his 14 year old son Robert get started with a quarter section. Robert later married Amy and together they raised 8 children. In 1944, they moved 4 miles south of Virden and set up shop on 600 acres of land. In 1959, Amy passed away and from that point on Robert's sons, George and Russell began taking on more of the farming operation; then called R. Chapman and Sons. By 1961, George and Russell had taken over most of the farming operation and incorporated the business in 1967 as Chapman Bros. Farms. Today the 16,000 + acre farm (11,350 owned and 6,350 rented) is run by their offspring Darren, Parry and Robert Chapman with George and Russell helping out during the busy seasons.

From the start the Chapmans have been both creative and /page 2

## Supporting Bill C-474

Bill C-474 – the private member's bill introduced by federal NDP agriculture critic Alex Atamanenko proposes that any new variety have a market impact assessment prior to approval by the Canadian Food and Inspection Agency. The bill passed second reading and may become law if passed by the Agriculture Committee and House of Commons and Senate.

MFC President Jim Lintott traveled to Ottawa June 7th and presented MFC's endorsement of the / page 4

## Export opportunities abound in Middle East

**T**he Canadian Forage and Grassland Association (CFGGA) recently returned from a Fact Finding Mission to Saudi Arabia and the United Arab Emirates (UAE). The purpose of the mission was to explore crop and livestock production practices in the Middle East to assess the potential for increasing forage exports to both countries.

Saudi Arabia is the world's largest exporter of oil and the region's largest importer of all goods, including agri-food products. It is also the largest exporter of dairy products in the region. The UAE has the world's largest thoroughbred herd and the majority of Arabian endurance racing horses, and the 3rd largest meat exports in the region. /page 3

*Provincial Grazing Tour - July 21, 2010 pp. 10*  
*Summer Seeding Tips - pp. 12*

# *Farm Family of the Year continued*

(continued from page 1) intuitive.

From building hay sheds from materials available in their area (oil field drill pipe) to developing labour saving devices for loading hay bales, they have always succeeded in finding an efficient way to manage their time and resources. They have also been successful in recognizing value for their products – staying in small square bales, as a portion of their production, to service clients in both Canada and the U.S. when others were changing to large bales. In 2004, the farm completely converted to zero-till which they find has had many benefits: reduced wear and tear on equipment, reduced labor, protection of soil moisture, and protection of the soil. In recent years cattle have been reinstated on their farm. They have employed many environmentally beneficial practices to the livestock operation such as rotational grazing, solar pumped water to troughs, and bale grazing.



Education has always been a priority for the Chapman family resulting in some form of post secondary training for everyone involved in the business. They are early adopters of technology and have been using computers for the past 20 years to manage their business.

Staff is very important to the Chapman farm. They value their talents and dedication to the business. As Chapman Bros. Farms has grown they have been sure to provide their staff with benefit's such as vacation pay, worker's compensation, a health benefits account and clothing. Chapmans now employ 3 full-time staff and 7 seasonal staff over and above the family workers. Len Skelton was the farm's first full-time employee and still works for the farm after 40 years. Lionel Perroult worked for the farm for 27 years and sadly, recently passed away. Those workers alone signify the comraderie and integrity of the Chapman operation.

Congratulations to all the Chapmans who were recognized at a ceremony at the Red River Exhibition site on June 22, 2010!

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# Opportunities abound in Middle East continued

(continued from page 1) Agriculture is well supported in the regions, both culturally and through government programming that cost shares crop inputs, irrigation infrastructure and the importation of livestock feeds. However, as successful as crop production has been in the region, it is based on a limited resource of water. Irrigation waters have been in steep decline over the past 20 years, as a result new government policies are shifting support away from domestic (irrigated) crop and forage production to crop and forage importation incentives. The UAE initiated the shift in 2006 by focusing on alfalfa production, following up with a recent announcement that they will end support for irrigating all Rhodes grass (the primary forage produced in the region) by August 2010. Saudi Arabia is implementing similar strategies over the next decade – starting by eliminating wheat and forage production by 2016. Both countries will target irrigation water for producing high value crops.

Traditionally, the market in the UAE has been the race horse industry and bovine dairy barns in the Emirates (provinces) of Dubai and Abu Dhabi. However, two new markets have recently developed in the region – the Bedouin farmers and corporate bovine dairies.

World forage trade volumes doubled overnight when in 2006 the Abu Dhabi government tendered the world to import forages for its local Bedouin livestock herders (camels, sheep, and goats). By 2009, UAE government subsidies reached \$250 million/year.

These tenders are expected to reach 1.1 million tonnes by 2011, and potentially 3 million tonnes by 2030. Although initial tenders called for high protein and energy alfalfa in single and double compressed medium square bales, future tenders will be open to multiple feed qualities and package types in an effort to reduce a number of nutritional and logistical issues in the country.

The UAE dairies are also importing large quantities of alfalfa to support the domestic milk production and a small amount of export. In fact, their domestic alfalfa production ceased a number of years ago and they now rely solely on purchased alfalfa products. Alfalfa demand for the dairies is expected to reach an additional half a million tonnes over the next decade.

Today, the major suppliers in the region are the USA and Europe (primarily Spain). Canada is considered a preferred supplier thanks to our quality, service and the global

reputation of CFIA regulations – and we have consistently marketed 2% of our forage production to the region for the past decade.

The Saudi Arabian dairy sector is another significant market in the region. And although younger, experts indicate that it will ultimately double that of the UAE. Given the importance of Saudi's dairy sector, significant forage imports are expected. The dairies in both countries are looking for medium square single and double compressed bales of alfalfa and alfalfa/grass mixes; feed qualities range between 150 – 185 Relative Feed Value, 18-22% Crude Protein and 29-32% Acid Detergent Fiber. They also import cereal straw for bedding and to be blended for some complete feeds marketed to the local farmers.

There are a few limitations for the Canadian forage sector the CFGA hopes to address in collaboration with its partners.

One of Canada's major limitations to this market is competitiveness related to pricing – primarily linked to the cost of domestic freight. Please contact the CFGA for more information on the new Manitoba Forage Marketers Group that has been established to pursue new export opportunities.

Financial contributions to the mission were made by both the Agri-Marketing Program administered by Agriculture and Agri-Food Canada and the individual participants.

## Marketing Manitoba Hay

“The demand is there,” says Phil Friesen, one of the founding members of the newly formed Manitoba Forage Marketers Group. Phil, owner of PhiBer Manufacturing in Crystal City, MB was one of the participants in the mission to the Middle East.

“We were readily welcomed by the Saudis and the Emiratis; they have the money to purchase our hay, we just have to find a way to deliver it to them in a cost effective manner.” To that end we have been in discussion with Bill Drew, Executive Director of the Churchill Gateway Development Corporation (CGDC) regarding their excellent storage facilities and the extended shipping season that is arising as a result of global warming. / page 4

“We were readily welcomed by the Saudis and the Emiratis; they have the money to purchase our hay, we just have to find a way to deliver it to them in a cost effective manner,” Phil Friesen, Owner PhiBer Manufacturing.

# Marketing Manitoba Hay continued

(continued from page 3) “Right now it is not worth it to ship via rail from Manitoba to B.C. or to Los Angeles,” says Phil. “The north rail line from both Eastern Saskatchewan and central and Northwestern Manitoba may work well for us economically – we will continue to work on that. As well, we are looking at various methods for loading and managing the shipment of products on board the ships. It is really important that the hay be NO higher than 12% moisture or it will arrive mouldy. We can’t afford to jeopardize our reputation for quality hay, we were there when one load arrived mouldy and the buyer said he would never buy hay from that supplier again. And, if you deliver hay that does not match your promises you will be out of both the product and the corresponding freight costs.”

“These are all things that we have to address as we consider ways to develop and market more alfalfa products and hay to new and existing markets in Canada, the U.S. and the Middle East,” continued Phil.

The Manitoba Forage Marketers Group will pursue effective shipping agreements and actively promote individual producer’s products through the developing website [www.manitobaforage.ca](http://www.manitobaforage.ca). The product inventory page will feature links through to producer/member’s page. This page will bring the farm to the buyers, highlighting their farm methodology, their family, their products etc. with both pictures and words. Members can provide testimonials about their service, and their products if they desire. Another key benefit of the website is the ability to confidentially share information with other members about negligent accounts, transportation events, pricing etc. through a password protected site.

Further promotion will occur at World Dairy Expo this fall. Join the Marketers Group and sell your products at WDE and on our website. If you would like to participate in this new venture, contact Corie Arbuckle at (204) 254-4192.

## Manitoba Marketer Members

Showcase your hay in the brochure and display booth used at World Dairy Expo this September/October.

Go to page 9 for more information on WDE or call (204) 726-9393.



## Bill C-474 continued



(continued from page 1) proposed bill . We don’t want this bill to adversely affect those crop sectors that already have a major GMO content. That horse has already left the barn. But we need this committee to understand that growing alfalfa is fundamentally different than growing those annual crops. Forage producers support Bill C-474 because we believe it would have the ability to protect the alfalfa industry from the truly dangerous effects of introducing genetic modifications into the alfalfa crop that are not approved by our customers.

Lintott’s presentation outlined the foundation for the MFC position. To maintain and expand our existing export markets we cannot ignore the regulatory decisions made in other countries. At least 35 countries have adopted mandatory labeling for any product that has been genetically modified. Many countries will not accept any agricultural products that have been contaminated with GMOs. Organic producers, livestock producers, forage producers, forage seed producers, the alfalfa fractionation industry, and the alfalfa sprouting industry will all be affected by the introduction of genetically modified alfalfa.

Alfalfa is a perennial crop that cannot be contained. Seeds and pollen are spread by water, wildlife and insects to cultivated land, to roadside ditches and to parklands. If the alfalfa is genetically modified this spread then creates a reservoir for the GMO gene in the feral, or wild plant population. Alfalfa seeds can lie dormant in the soil, on both cropland and non-agricultural land, only to germinate many years later to create a new source of GMO genes. At that point there is nothing to stop that GMO gene from moving back into other crop production. In Manitoba 40% of our agricultural land is in forage production and feral alfalfa is everywhere in our environment. If we use GM alfalfa we will no longer know where the gene resides – until it is too late to do anything about it.

In the organic industry there is zero tolerance for GMO contamination. A producer of organic crops and vegetables needs to ensure that the plow down crops such as alfalfa that provide the nitrogen to grow the crop is free of GMO’s. The dairy producer for the organic cheese has to guarantee that the milk is produced with hay from non-GMO alfalfa. The organic industry, though small, is currently a 28 billion dollar business worldwide. In Canada it is nearly

2 billion dollars, with Saskatchewan, Ontario and Quebec being the top three producing provinces. Organic forages and pastures are the 2nd largest in area, narrowly tied with organic grains and oilseeds. There is no organic canola production in Canada. The organic industry is growing at an astonishing 19% per year. Clearly this industry would be devastated by the presence of an uncontrollable GMO gene.

Alfalfa, and its associated grasses in mixed hay is also becoming a major export item both overseas and to the United States. Some of that demand will be for non-GMO alfalfa, which we will be unable to meet if Roundup Ready Alfalfa is registered. Manitoba forage producers are not against scientific research or opposed to the use of genetically modified crops. We simply believe that because of the controversy and the current market rejection of GMO products, any crop not currently being produced commercially as a genetically modified crop should have a market impact study prior to the release of such a variety.

The concerns you have heard expressed about this bill are primarily around the regulatory system that could flow from the bill. No one wants a regulatory system that would prevent us from moving forward with new exciting traits that the world wants and would welcome. The solution to this is the establishment of a regulatory body that includes all stakeholders. The canola industry has this type of stakeholder and importer input. But, what it lacks is the legal requirement for action that Bill C-474 would provide. We further believe that the market impact analysis required by this bill will be positive as GMO developers will focus their work and investments on traits that our customers want and will accept.

Through the passing of this Bill and the establishment of a regulatory body that is stakeholder driven Canada will have the opportunity to enhance its domestic and export leadership in agriculture.

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## Wayne's Clippings

Well as usual we seem to be off to another interesting year as far as forage production goes in Manitoba. As I prepare this piece for the Forage Focus many producers are looking for an extended period of warm dry weather. So far we are getting much more than our share of rain.

There never seems to be a dull moment with either the MFC or with the newly formed CFGA. As you will see in the following pages there is lots on the go.

**Congratulations to the Chapman Family** – the MFC was very proud to be involved in nominating the Chapmans of Virden for the Red River Exhibition Farm Family of the year award. Forage production is an important part of the Chapman operation and we (MFC) have appreciated very much their support for forage related initiatives. A big thank-you to Jane Thornton, MAFRI, for preparing this nomination.

**Provincial Forage and Grassland Strategy** – the Strategic Plan is covered in more detail on pg. 8 however, I just want to thank everyone who provided input. While this process took longer than anticipated we feel that this Manitoba Forage and Grassland Strategic Plan is perhaps unique in that it lays out a number of specific action plans for the sector to move forward on. We look forward to working with the many stakeholder groups in the further development and implementation of these Action Plans.

**Canadian Forage and Grassland Association / Association Canadienne Plantes des Fourrages (CFGA/ACPF)**



– the CFGA continues to put in place the many building blocks for the new organization; it is moving forward on a number of areas.

- The development of the CFGA website. Corie Arbuckle is working with us on the design of the website which will be a very important communication tool for the new organization.
- The Middle East Fact Finding Mission brought back valuable information on the potential for Canadian forage products in the Middle East.
- CFGA representatives are bringing forward forage and grassland issues to both the Beef Value Chain Round Table and the Special Crops Value Chain Round Table.
- CFGA representatives are meeting with the major livestock user groups to explore potential partnerships.

If you or your company is interested in becoming more involved in the CFGA please contact us.

**Meeting with Honourable Stan Struthers Minister Manitoba Agriculture, Food and Rural Initiatives** – MFC met recently with Minister Stan Struthers to highlight a number of issues of concern. A follow-up meeting has been set with Minister Struthers to continue this dialogue. The 2010 Grazing School, the importance of filling MAFRI Forage positions and the highlights of the Forage and Grassland Strategy are some of the areas being discussed with Minister Struthers.

Wayne Digby  
Executive Director



# Revisiting milk from grass-fed cattle

by: Dr. Rob Berry- MAFRI Dairy Specialist

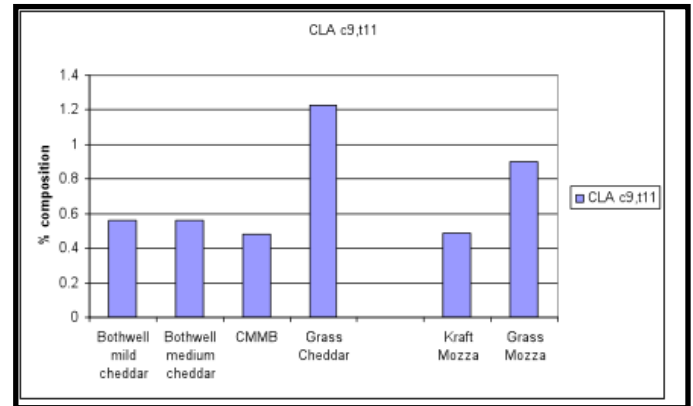
While much of current dairy production in Manitoba/North America relies heavily on concentrated feeds, forages do provide a significant portion of the ration. The pasturing of dairy cattle on the Canadian Prairies is often disregarded for a number of reasons such as heat stress, fly control, variable dry matter intake and soil damage. However, with feed costs approaching 45-50% of variable costs on dairies some producers are taking a second look at producing milk from grass. Additionally, as cow longevity is a serious concern, pasturing can have further benefits by reducing the risk of lameness and mastitis, major causes of culling in Canadian dairy herds. Switching cows from a total mixed ration under confinement (and more controlled conditions) to pasture, results in many changes. The most obvious change is the volume of milk produced drops considerably whilst components such as butterfat milk, overall milk protein and casein become increasingly more variable. Producers are therefore cautious about this as it would appear to have a negative effect on profitability. It is not until the reduced costs (less energy to prepare and feed the animals, lower manure handling, and need for large specialized storage structures), that the impact on profitability can be calculated.

Recently there has been significant research promoting the benefits of the Conjugated Linoleic Acid (CLA) in dairy products. A growing body of evidence suggests that CLA has anti-cancer and anti-obesity effects as well as promoting cardiovascular health. The level of CLA's in milk is affected by both diet and genetics. Milk produced from cows fed low grain rations and those on pasture has been found to contain higher levels of CLA's.

In the summer of 2007 a study was conducted to examine the quality of the milk produced from pasture on a commercial dairy in southern Manitoba. Fifty three 1st and 2nd lactation cows roughly 80-130 days in milk were chosen from a herd of 250 head. The herd was milked 2 times/day and fed the concentrate component of their ration in the parlor to a maximum of 12 lbs/day dependant on yield. The farm's management emphasis was placed upon low ration cost and cow longevity (not striving to maximize yields). Pasture consisted of a mixed sward of perennial rye grass and alfalfa and was grazed for 14 weeks starting in early June. Individual milk samples were taken from each cow 3 times over the grazing period (early, middle & late season). The milk samples were analyzed for butterfat and protein as well as levels of CLA. Daily yield was also measured for each cow. A prototype cheddar and mozzarella cheese was produced at the University of Manitoba Food Science Dept. using milk from the August grazing period. The cheese was then analyzed for CLA levels relative to some commercially available cheeses.

Baseline CLA levels were measured at 0.4% of butterfat in the pre-pasture period when cows were receiving an alfalfa silage based total mixed ration (TMR). Cows at pasture showed over a threefold increase in CLA levels in the early and mid grazing period. Heat stress and dry conditions affecting the pasture quality had a large impact on herd performance during the grazing period. Daily cow yields fell over the grazing season - beginning 28.4L, mid 24.0L and late 21.5L at 3.73, 3.44 and 3.67% butterfat respectively. The level of CLA's in the prototype cheeses were almost double that of commercially available cheese. In addition the cheese provided a good preservation medium for CLA which showed little degradation over a six month storage period.

Overall, cows performed well at pasture with the greatest limiting factor being the quality of forage levels. CLA levels were at least double those produced from conventional rations. With consumers placing more emphasis on the healthful benefits of milk it may be timely to investigate the effect of fresh forage on some specific milk components namely CLA's and other beneficial fats. Future niche markets may be based on the fact that not all milk is created equal and basic component tests will be too crude to assess milk value.



Levels of CLA in cheese (three-fold increase in early and mid-grazing period)

Thank you to Agri-Food Research and Development Initiative (ARDI) for their sponsorship of this project.

*MFRC Reports*

## Garland Project - Managed Grazing Systems on Hardwood Timber Harvested Areas

by: Bill Gardiner, MAFRI

This project was introduced in 1997 as a research based initiative to assess resource interaction (grazing vs hardwood timber harvesting). The main objective was to design and evaluate grazing system(s) to provide livestock benefits and allow for optimum regrowth to meet provincial hardwood stocking standards for future timber harvesting. The data collected from this project will ultimately assist in the development of provincial government policy relative to co-management of Crown land for the long term benefit of both resource users. It will complement the defining principle of multiple resource use in the provincial Crown land use planning process/system.

This project was established as a long term project to collect and analyse data from a forestry (i.e.: stock density, growth and yield, health), livestock (i.e. weight gains) and forage (i.e.: quality, quantity) perspective. The project is assessing different livestock stocking rates/strategies and seasons of harvest (winter vs summer). Partners include MAFRI, Manitoba Conservation (Forestry), Louisiana Pacific Canada, Agriculture and Agri-Food Canada, R.M. of Ethelbert, MFC and producers/cooperators. Funding has come from a variety of sources including Greencover Canada and Agriculture Sustainability Initiative with MFC as the proponent.

The final report is being developed with the assistance of Western Rangeland Consultants Inc. based in Edmonton, Alberta. As mentioned, the report will assist in guiding and developing provincial government policy and will include recommendations to the province relative to co-management (forestry, livestock grazing), environmental protection and long term multi-resource sustainability. It is anticipated that one outcome will be the introduction of Crown land grazing leases that will have specific grazing management conditions to allow for regeneration of trees. Another outcome may be harvesting methods or strategies which are altered or designed specifically for grazing lands. The report will also provide technical information and/or guide future extension activities relative to rangeland management and assist private landowners manage their land resources.

*Attend the Provincial  
Grazing Tour (July 21, 2010)  
to see the project results.  
(page 10)*



## Manitoba Forage Benchmarking Project (MFBP)

The MFBP is collecting baseline/benchmark forage yield data on native pasture in Manitoba. It was initiated in 2004 and is in its final year.

The MFBP data is being collected in 4 separate climatic or ecozones in the province and on 3 different or distinct soil types or categories (i.e.: good soil, marginal soil, poor soil) with each of the 4 ecozones. The data collected is also specific to 5 vegetation categories for each of the soil types in each of the ecozones. The vegetation categories include upland meadow, lowland meadow, transitional, wooded and open wooded. 4 replications are included for each of the vegetation categories.

The number of sites and cages are:

4 zones x 3 soil types = 12 sites

12 sites x 5 vegetation categories x 4 reps = 240 cages

Field activity has included clipping (twice annually), species I.D., range condition assessment and litter analysis. Additionally, weather stations were placed at each of the 12 sites to collect precipitation, temperature and soil moisture/temperature data. Processing of samples includes sorting (grass vs. forb vs. woody), drying, weighing and feed quality analysis.

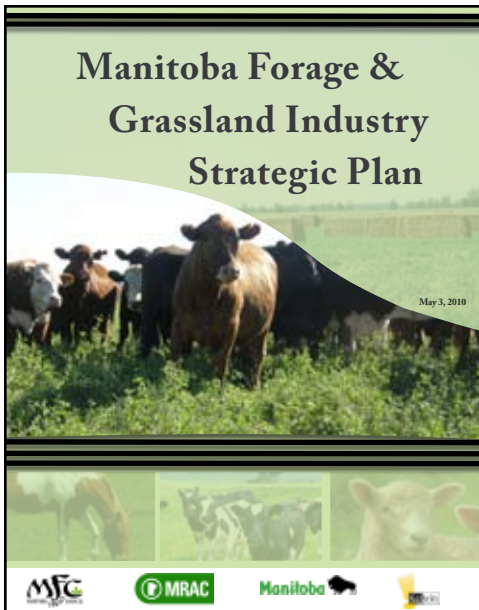
In addition to the basic yield data being collected, the various add-on components (i.e.: weather data, litter analysis, species I.D., range condition assessment, feed analysis etc.) will all be valuable in terms of predicting pasture production potential and/or an estimated range of yield for each of the vegetation categories for each of the soil types in each climatic/ecozone. It is anticipated that the information gathered from this project will serve as baseline data and assist in guiding future extension activities relative to rangeland management.

Thank you to our funder ARDI.

Project partners for the MFBP include MAFRI, ASFC, U of M, MFC and producers.



# Manitoba Forage and Grassland Industry Strategic Plan released



In releasing the Manitoba Forage and Grassland Industry Strategic Plan, Jim Lintott, Chair of the Manitoba Forage Council stressed the importance of the forage and grassland sector, “we are very optimistic about the future of the forage and grassland industry in Manitoba and believe that this Strategic Action Plan will move the industry forward and capitalize on the many opportunities that it offers.”

Kelwin Management Consultants worked closely with a broad based group of forage and grassland stakeholders in the development of the Strategic Plan.

The Strategic Plan highlights a number of areas. Two of the key strategic areas include the continuing need for research and technology transfer in the forage and grassland area and the importance of greater coordination and producer input in prioritizing and implementing research and extension activities.

The Strategic Plan further emphasizes the importance of having a strong organization to provide leadership and coordination in the forage and grassland area. The Strategy recognizes the past and potential future role of the Manitoba Forage Council in representing the interests of the forage and grassland sector. In order to fulfill this role the MFC must have adequate

and sustainable funding. Various operational and funding alternatives are explored in the Plan.

The Strategy also recognizes the potential to build on the forage marketing potential of the Manitoba forage industry by identifying new markets that Canadian producers and exporters can feasibly supply on an ongoing basis. Key to the development of these markets will be to ensure that groups such as the Manitoba Forage Marketers are working closely with the Canadian Forage and Grassland Association to explore ways of addressing the logistics and infrastructure challenges.

Wayne Digby, Executive Director of the Manitoba Forage Council points out that “This Manitoba Forage and Grassland Strategic Plan is perhaps unique in that it lays out a number of specific action plans for the sector to move forward on. We look forward to working with the many stakeholder groups in the further development and implementation of these Action Plans.”

The Manitoba Forage Council would like to thank the Manitoba Rural Adaptation Council and Manitoba Agriculture, Food and Rural Initiatives for their funding support in the development of this Strategic Plan.

**B**ecome a member of the Manitoba Forage Marketers Group and join your colleagues for a trip to WDE. Members can showcase their farm products and garner new clients (over 65,000 people attend World Dairy Expo). For more info: (204) 726-9393.

**It's that time of year again. Please renew your MFC membership to help us continue to serve you!**

**\$40 per year.**

**Send your cheque to MFC**

**125 Patterson Cres.**

**Brandon, MB R7A 6T7**

# Province holding Wetland Consultations

The Province will be holding 10 public consultations on wetlands in various locations throughout Manitoba. These consultations are a critical step toward a wetland policy in Manitoba.

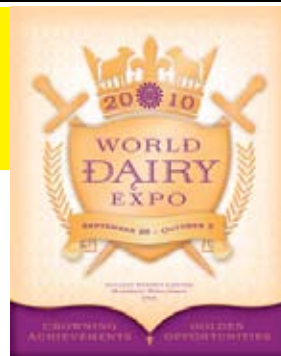
The following five meetings are coming up.  
July 5 – Arborg, Biofrost Recreation Centre  
July 6 – Steinbach, Steinbach Arts Council  
July 8, Winkler, Winkler Library  
July 13, Melita, Legion Hall  
July 14, Brandon, Riverbank Discovery Centre

For more information go to: [www.manitobawatercouncil.ca](http://www.manitobawatercouncil.ca)

## WORLD DAIRY EXPO

Expo is the international dairy meeting place, a five day event showcasing the finest in dairy genetics and the newest technologies available to the dairy industry.

Attend the event designed with today's dairy producers in mind. At World Dairy Expo everything is dairy focused and no other event in the world compares!



2010 World Dairy Expo

“Crowning Achievements - Golden Opportunities”

September 28 - October 2, 2010

Madison, WI USA

Be one of more than 65,000 dairy industry enthusiasts who make the trip to World Dairy Expo in Madison, Wisconsin. It's the international meeting place for the dairy industry. Expo offers the most elite combination of dairy cattle and exhibits in the world.

You'll find the most modern dairy equipment and the newest dairy technology and innovations, including animal health supplies, milking systems, feeding products, forage handling and manure equipment plus embryos, semen and genetic research. You'll see North America's top dairy cattle compete for honors in seven breed shows. Throughout the week meet herd owners in the barns, place your bids at five cattle auctions and then watch the Parade of Champions and the selection of World Dairy Expo's Supreme Champion.

While you are at World Dairy Expo you can also take advantage of free expo seminars on dairy management and other industry issues. These seminars offer technical expertise to help you stay knowledgeable, competitive and profitable. Explore a variety of farms from around the world and never leave the grounds by participating in World Dairy Expo's Virtual Farm Tours. The farm tours, presented by the producers themselves, are the destination for attendees looking to learn more from their peers.

CHECK OUT THEIR WEBSITE: [www.world-dairy-expo.com](http://www.world-dairy-expo.com)

Join their facebook page or follow them on twitter.



## Coming Events

# Provincial Grazing Tour - July 21, 2010

## PARKLAND REGION

Join us for another educational / entertaining tour as we travel through the northwest region of Manitoba.

**WEDNESDAY, JULY 21**

10:00 am - Sifton

- Intensive Grazing Management - Circle Y Farms - Ken and Dean Yakielashek - Intensive Grazing Management

- Corn Grazing

- Holistic Management

- Sundog Solar - Carl Dreidger

- Manitoba Habitat Heritage Corporation - Marilena Kowalchuk

11:30 pm - Bagged Lunch served on Bus

12:00 pm - Ethelbert/Garland

- Provincial Benchmarking Project

- Garland Project - Bill Gardiner - Manitoba Agriculture, Food and Rural Initiatives (MAFRI)

- Podolsky Honey Farms -

3:30 pm - Gilbert Plains

- PCDF - Keith Watson - MAFRI

- Provincial Polycropping Project -

Ron and Janice Apostle Farm - Pam Iwanchysko - MAFRI

- Bale Grazing - Steve and Paula Shumka Farm - Pam Iwanchysko - MAFRI

SUPPER - Trembola Cross of Freedom

A traditional Ukrainian Supper including borscht, perogies, cabbage rolls, roast beef, all homemade!

**BUS A DEPARTURE TIMES (Southeast)** Be there 10 minutes prior.

6:00 am - Winnipeg Livestock Auction (Hwy. 6 and the Perimeter)

6:45 am - MTT Service, St Laurent

7:15 am - Lundar Motor Hotel

8:15 am - Narrows Lodge

8:45 am - Westlake Community Club

9:30 am - Dauphin - Marketplace Mall

10:00 am - Arrive in Sifton - first tour stop

**BUS B DEPARTURE TIMES (Southwest)**

7:00 am - Brandon Shell/Smitty's Parking Lot (18th Street & Hwy #1)(park on South side of building)

7:30 am - Minnedosa

(Uncle Tom's Restaurant on Hwy #16)

8:00 am - Neepawa (Neepawa Co-op)

9:00 am - Ste Rose (Chicken Chef on Hwy #5)

9:30 am - Dauphin - Marketplace Mall

10:00 am - Arrive in Sifton - first tour stop

CIRCLE Y FARMS - Ken & Nadia and Dean & Kerrie Yakielashek

- Circle Y Farms has moved from a grain based operation to a more sustainable beef/forage operation. The 2000 acre land base consists of all tame forage species in an intensive managed grazing system, and 200 acres are used as annual crop land for extended grazing. Annual crops (primarily corn) are seeded annually and grazed during the winter months to extend the grazing season.

Pasture Watering Systems and Powerflex Fencing Systems - Carl Driedger - Sundog Solar

Marilena Kowalchuk - Managing the Water's Edge

- Riparian Area Management - Healthy riparian areas play an important role in controlling erosion, reducing downstream flooding and maintaining water quality.

Provincial Benchmarking Project/ Garland Project

- The Benchmarking project has been gathering yield information on native pasture since 2004. The Garland Project is a forestry/grazing research based project designed to deal with co-management of leased Crown Land.

Find out the results of these two projects.

Podolsky Honey Farms - Ed Podolsky and family

- Ed and his family have operated Podolsky Honey Farms in Ethelbert, Manitoba since 1955. They started with 9 hives and have had 5500 hives in its peak. Learn the history behind the farm, about crop pollination, wintering, and all that honey farming has challenged them with.

The Parkland Crop Diversification Foundation (PCDF)

- PCDF of MAFRI supports similar diversification centers in Roblin, Melita, Carberry and Arborg.

- PCDF runs small plot trials on a variety of crops: cereals, pulse crops, new crops, and annual and perennial forages. On the tour we will view a hemp research plot and its potential as livestock feed, grain and silage.

Provincial Polycropping Project - Ron and Janice Apostle Farm - Gilbert Plains

- Polyculture mixtures have demonstrated positive effects on overcoming common soil degrading characteristics associated to annual cropping practices. Field studies in North Dakota have shown improvements in soil organic matter, reductions in erosion and weed populations when polyculture cover crops are grown in place on monocultures.

### REGISTRATION FEES:

Producers: \$75, MFC Members: \$50

Industry Members: \$175 Fee includes: Meals, Bus Travel and Seminars, Industry Non Members \$200

Register at [www.mbforgagecouncil.mb.ca](http://www.mbforgagecouncil.mb.ca) or (204) 622-2006.

# *Polycropping - A biological approach to sustainable soil systems*

By: Pam Iwanchysko – Farm Production Extension – Forages  
Manitoba Agriculture, Food and Rural Initiatives

**P**olycropping is the concurrent use of multiple crops that are beneficial to each other, where the output of each crop becomes the input of another, creating a balance in the soil and environment. It is the exact opposite of a mono crop where you have no more than one species of crop growing at one time. Polycropping is an agricultural management tool used to increase biodiversity on a farm. Increased biodiversity increases the health of the farm, enabling it to fight off disease and pests, and requires less or no chemicals and fertilizers.

Traditional farmers are now favoring biodiversity as a way to maintain the long-term agricultural productivity of the plants. For example in Mexico, farmers plant maize (corn), beans and squash all together rather than in separate fields as the beans fix the nitrogen enhancing soil fertility and improving the maize (corn) growth. The maize (corn) plants in turn provide trellises for the bean vines and the squash plants with their wide shady leaves suppress the weeds.

The concept behind polycropping is simple - mimic Mother Nature and try to reap the rewards. For example in a true native pasture, one would have lots of biodiversity in terms of plant species – grasses, legumes, brush, wildflowers, trees and much more, which was and is sustainable. Therefore this is something that we should look at as a viable alternative in cropping systems as well.

The concept of utilizing multiple species in a single mix for use as a cover crop to improve soil health is intriguing. The potential benefits can be great, and include the following; reducing erosive losses, increasing soil organic matter, capturing leached nutrients, promoting biological nitrogen fixation, conserving soil moisture, moderating soil temperature, and suppressing weeds and disease. Increasing soil organic matter alone provides many soil health benefits such as greater nutrient and water holding capacity, improved tilth or aggregation, and improved water infiltration. Diverse cover crop mixes can be sown in the spring with the intent of supplying a source of supplemental forage for livestock, or can be sown following the early harvest of winter or silage crops. The key to a successful cover crop is to produce an ample amount of biomass. Species are selected based on providing a mix of warm and cool season broadleaves and grasses, as well as a mix of different root systems (aggressive tap roots, long and short fibrous roots). An example of a poly-culture cover crop could include a mix of pearl millet, oats, cowpea, oilseed radish, forage turnip, and hairy vetch. The mass mixture of root systems sequesters carbon and distributes organic matter throughout the soil profile. The large taproot of an oilseed radish can break up tillage induced restrictive layers, and the long fibrous roots of pearl millet can retrieve nutrients that may have been lost to leaching. Legumes are included in the mix to fix atmospheric nitrogen and their residue has a low C:N ratio contributing to faster breakdown and mineralization of nitrogen for the following crop as opposed to heavy cereal residue which can cause net immobilization of nitrogen. Synthetic nitrogen applications can be decreased for the following crop based on this N credit thereby reducing the greenhouse gasses associated with its production, and increasing profitability. If sufficient biomass is produced, it can aid in regulating evaporative losses of moisture from the soil surface, and regulate soil temperatures. Beneficial soil microorganisms are sensitive to extreme temperatures and critical populations can be preserved by moderating extreme soil temperatures with heavy foliage. If the cover crops are left to winterkill, the resulting residual cover in the spring acts as a weed suppressant and provides protection from erosion.

Manitoba Agriculture, Food and Rural Initiatives staff in conjunction with the Benchmark Forage consortium based in Gladstone are conducting 10 field trials across the province to test some of the above mentioned advantages. The mixture will be compared to a monocrop of barley. The mixture consists of millet, barley, forage turnips, vetch, radish, and peas. For more information on these trials in your local area please contact your nearest MAFRI office.



# Summer Seeding of Forages

by: Tim Clarke, MAFRI

**T**he most reliable time to seed forages is in the spring but if spring seeding is not possible, summer seeding is a viable alternative. Do not use companion crops with summer seeding.

## Summer Seeding

Seedlings must be established before freeze up so there will be sufficient root reserves required to survive winter. Plants require 6 weeks of growth after germination and will generally survive if a crown develops. Recommended seeding dates are July 20-30th for < 2500 CHU. Lack of moisture is always a risk, however at the present time it doesn't seem to be a factor. If soil conditions are extremely dry, with no rain in the forecast, abandon plans to summer seed. Deep tillage is best done several weeks ahead of seeding so rains can settle the soil before final seedbed preparations.

*Here's a few tips for summer seeding:*

- Most grasses can be seeded up to 2-3 weeks after alfalfa
- Birdsfoot trefoil and reed canarygrass have slow seedling development, so summer seeding these are rarely successful
- Do not plant warm season grasses as a late summer seeding

## Fertility

- Good fertility promotes rapid seedling development and reduces winter kill
- Fertilize according to soil test: do not skimp on fertility; current fertilizer prices have come down

## Seedbed Preparation

- Seed to soil contact is very important with summer seeding
- A loose, lumpy seedbed dries out fast
- Soil should be firm enough so a footprint sinks no deeper than 3/8 inch
- Seed shallow (1/4 inch) into firm seedbed; always pack soil after seeding

## Weed Control

- Perennials such as Canada and sowthistle, quackgrass, other grasses or legumes must be cleaned up before seeding
- Winter annuals such as stinkweed, tansy mustard, shepherd's purse can be controlled with 2,4DB and MCPA (1-4 trifoliolate of alfalfa)
- Check Weed Guide for specific weed problems

## Autotoxicity

- Autotoxic compounds are released by old/dying alfalfa plants that inhibit growth and establishment of new alfalfa seedlings
- Best to annually crop fields for 1-2 years after taking out an alfalfa stand
- This is a good time to clean up any weeds

## Late Fall/Dormant Seeding

- Can be a viable option in establishing forages if proper timing and management is practiced
- Seed from October 15 until freeze up
- Soil temperatures should be < 2 degrees C
- Has advantages in areas prone to spring flooding or peaty areas which stay wet well into summer >

## CALENDAR RAISES \$\$\$

The 2010 calendar created to commemorate the works of the late Glen Nicoll, photographer, producer, and writer for the Manitoba Co-operator raised \$6,690 for the Brain Tumour Foundation of Canada.

Thank you to all who supported this fundraiser by purchasing a calendar.

## Dormant Seeding

- Seeding into stubble reduces the chance of seed movement from wind or water
- Some seeds will die overwinter, therefore increase seeding rate 20-30%

## Dormant Seeding Risks

- Spring frosts could kill seedlings
- Grass species have the best chance of survival
- Dormant seeding of alfalfa has mixed results
- Sweet clover generally does not work at all with dormant seeding

For more information contact your MAFRI office or check out the Reference Manual or the Sod Seeding Booklet at [www.mbforagecouncil.mb.ca](http://www.mbforagecouncil.mb.ca)

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## *Price-taker or Setter?*

**T**hink like a marketer rather than a seller says Curt Lacy, University of Georgia Extension livestock economist (e-Hay Weekly, May 26, 2010). Sellers focus on convenience and often find themselves price-takers.

Marketers, on the other hand, are focused on profits. They use the following concepts as guidelines in developing marketing strategies:

- Produce what the market wants. Successful marketers understand there are many kinds of hay and hay markets. They strive to match the hay they produce with the needs/wants of individual markets.
- Market at the most profitable time. “Selling your product out of the field immediately after harvest might be convenient for you as a grower,” says Lacy. “But you need to ask yourself how much value could you add by storing the hay on-farm and waiting to sell until demand picks up during the winter months.”
- Market at the most profitable place. “Setting up a delivery option for customers will involve additional costs, time and aggravation, but it might be worth it if it allows you to expand your customer base,” says Lacy. To determine if offering delivery makes sense for you, consider operational costs (fuel, repairs, tires, etc.) and fixed costs (depreciation, insurance, licensing tags, other taxes, etc.) of trucks/trailers, as well as labor costs associated with loading, hauling and unloading into a buyer’s barn.
- Take some control over price. Knowing your cost of production and general price trends for hay in a given area are starting points. “If the four or five-year average price for a round bale is \$40 but your breakeven cost is \$65, you’re going to have to make some adjustments (i.e., find ways to reduce costs or develop strategies for adding value),” says Lacy. “On the other hand, if your breakeven cost is \$50 and the going price is \$70, you’ll have the option of marketing at a lower price in order to move more product.”

Lacy presented his marketing tips at University of Georgia (UGA) Extension’s Hay Production School. To see his PowerPoint presentation: visit [/www.georgiaforages.com/](http://www.georgiaforages.com/) and scroll to Handouts From The 2010 Hay Production School.



# *Can we improve pasture management using information from space?*

Luciano González, Department of Animal Science at the University of Manitoba, sees not just stars and satellites, but opportunity for new pasture management tools. Satellite information has been in use for years with precision agriculture, but its use has by and large centered on annual crop production. González sees great potential in applying the precision approach to livestock agriculture and is hard at work putting together a research plan for precision livestock production systems.

“Satellites collect data which is suitable to monitor multiple components of pasture environments across time and space, in a remote and automatic fashion. This data can provide information about management, cattle behavior and rangeland response on a whole system basis,” says González. “The goal is to transform this information into pasture management decision making tools to help cattle producers”.

Monitoring grasslands and livestock behavior by using satellite imagery, alone or in combination with other technologies, can help producers simplify management and improve efficiency. Satellite images can help visualize conditions that are difficult and time consuming to assess by direct on ground monitoring because of the large variability from one location to another in a field. Images provide spatial resolutions as fine as 30 x 30 metres at intervals as frequent as 15 days. This technology can be used to determine the quantity of forage available, forage quality (such as protein content), pasture growth rate, as well as distribution patterns across the pasture. It can be a management tool for pasture planning (designing rotational grazing systems, improving grazing management), as well as assessing environmental impacts.

By using satellites, producers and researchers have the potential to improve cattle profitability and productivity, forage productivity and utilization efficiency, and environmental sustainability. This potential was the driving force behind a recent research project conducted by Drs. González, Ominski and Wittenberg which was funded by the Manitoba Sustainable Agricultural Practices Program.

In this project, satellite images of research and extension grassland/pasture study sites were compared with on ground quality and quantity measurements to assign quantitative information to the image colour scales. The long term goal is to develop models for grasslands management. Models can be used to help producers directly as decision making tools for on farm use, or indirectly for developing and testing beneficial management practices through research.

The potential for using satellite data goes beyond images of pasture and hay land. For instance, using GPS collars to monitor grazing behaviour and landscape use by cattle wearing the collars may aid grazing management. A current Manitoba Conservation Districts Association study on off-stream watering systems uses GPS collars to track cattle movement. The GPS collar is a tool for making management decisions based on where the cattle choose to obtain water and the associated impact on stream bank health. Luciano is working along with Kim Ominski and Gary Crow, also from the University of Manitoba. “The questions we’re asking are whether cattle prefer water from off-stream troughs or the stream when given the choice. In addition, we wonder if a natural barrier of deadfall is enough of a deterrent to keep them out of the stream,” says Ominski. “Knowing how the cattle respond to choices will help in selecting a watering system which improves animal productivity as well as environmental sustainability. Satellite imaging may also prove a useful decision tool for cattle overwintering system management. Satellite images may show how forage stand productivity and distribution over time can be affected by different systems such as bale or swath grazing, along with management within those systems such as site selection, bale density and stocking density. A large collaborative team from the University of Manitoba, along with partners at AAFC, Agri-Environment Services Branch and MAFRI are coming together to shed some light on this and many other aspects of extensive cattle overwintering systems in Manitoba.

For more information on cattle/forage systems research at the National Centre for Livestock and the Environment, visit our website (<http://umanitoba.ca/afs/nclce>)



Luciano González with satellite imagery of La Broquerie Project site.

By Luciano A. González and Christine Rawluk  
University of Manitoba  
National Centre for Livestock and the Environment

NATIONAL CENTRE FOR LIVESTOCK  
AND THE ENVIRONMENT  
<http://www.umanitoba.ca/afs/nclce>



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# Viterra & Ducks Unlimited Canada renew forage partnership for 2010

## Forage Incentive Program

Duck Unlimited Canada (DUC) and Viterra are teaming up to offer eligible producers up to \$30/acre to establish forages. Through a unique partnership with Viterra, DUC is pleased to offer conservation-minded producers an incentive to plant forages, which includes Viterra's extensive lineup of forage varieties. Producers must be located in DUC target areas to qualify.

Additional \$\$\$ may be available to producers who are willing to restore small wetlands.

If you have questions about forage production, DUC has answers – and programs to help. DUC offers landowners and producers sound advice and incentives to improve their bottom line.

For program details, call DUC in Brandon at 1-866-251-DUCK (3825) or email [m\\_couvelier@ducks.ca](mailto:m_couvelier@ducks.ca) to learn more.



## WINTER WHEAT CROP SOLUTION FOR WET CONDITIONS

- seed winter wheat into chemfallow.

Having a crop growing this fall will help reduce the excess moisture, and also eliminate the potential challenges of seeding in those wet fields in 2011.

“Wet springs that make seeding difficult are ideal for winter wheat,” states Paul Thoroughgood, Regional Agrologist with DUC. “Due to its early growth habit and high yield potential, winter wheat is able to make good use of spring and early summer moisture.”

Through the Winter Cereals: Sustainability in Action initiative, Ducks Unlimited Canada (DUC) and Bayer CropScience are offering growers substantial financial incentives to seed winter wheat this fall. Winter wheat offers yields up to 40 per cent higher than spring wheat. Plus winter wheat helps the environment by providing wildlife habitat.

“Chemfallow may not be ideal stubble, but this standing material is essential for trapping snow and protecting the winter wheat plant from cold temperatures throughout the winter,” says Thoroughgood.

For more info go to: [www.ducks.ca](http://www.ducks.ca)

*become a friend of forage  
and grasslands - \$250 gets  
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### By Changing Your Thinking

Unknown author

By Changing Your Thinking,  
You change your beliefs;  
When you change your beliefs,  
You change your expectations;  
When you change your expectations,  
You change your attitude;  
When you change your attitude,  
You change your behavior;  
When you change your behavior,  
You change your performance;  
When you change your performance,  
You Change Your Life!

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