



Grey  
Wooded  
Forage  
Association

# The Blade

*"Creating an Awareness of Forages"*

## SEPTEMBER 2012

Box 1448, 5039 - 45 Street, Rocky Mountain House, Alberta T4T-1B1,  
Phone: 403 844 2645, Fax: 403 844 2642, Email: [GWFA1@telus.net](mailto:GWFA1@telus.net) or  
[GWFA2@telus.net](mailto:GWFA2@telus.net), Website: [www.greywoodedforageassociation.com](http://www.greywoodedforageassociation.com)

### In this issue:

- Growing Forward 2: A New Agreement Taking Shape - Pg 3
- Kura Clover: A New Pasture Legume for Ontario? - Pg 6

### Upcoming Events:

- Pasture Legume Field Tour - Page 5
- Western Canadian Grazing Conference - Pg 12



**Contact us to read  
'The Blade' online on our new  
website:**

[www.greywoodedforageassociation.com](http://www.greywoodedforageassociation.com)

\*Email us for a username/password and enjoy  
reading 'The Blade' anywhere!

\* Restricted to members only!

[gwfa1@telus.net](mailto:gwfa1@telus.net)

**'Like' Grey Wooded Forage  
Association on  
Facebook and  
enjoy viewing our latest photos  
and hear about upcoming  
events!**

**facebook**

*Photo by Ron Finkbeiner*

### VISION STATEMENT

GWFA – The centre of choice for gathering and dispersing of forage and livestock information, providing a strong link with producers and the research community

### MISSION STATEMENT

To enhance awareness of the organization as an information exchange centre, illustrating forage and livestock production practices that are environmentally and economically sustainable for the agricultural community.

*Approved May 2012*

## Manager's Notes:

*By Albert Kuipers*

A recent study done on behalf of the Alberta Forage Industry Network (AFIN) showed that pastures produced ten to fifteen percent higher net returns than wheat, barley and canola over a ten year period from 2000 to 2010 on grey wooded soils, black soils and brown soils. The impact of the information from this small study has such great potential that AFIN will pursue a larger, more in-depth study. More details to follow on the AFIN website and in our Fall Newsletter.



When opportunity knocks, open the door while you can. This fall the **Western Canadian Grazing Conference & Tradeshow is in Red Deer** for the first time since 2002. We're getting right down to the "**Grass Roots of Grazing**" this year. As one of the co-chairs, along with Vicki Heidt from the Battle River Research Group, I am very excited to invite you to join us for a great time of learning and socializing with some of Western Canada's top grazing and soils managers.

This is an excellent opportunity to learn how to produce healthier and more productive pastures. We will have a strong focus on understanding soils and improving soil health resulting in sustainable, increased production. Check out our lineup of keynote speakers:

- **Charley Orchard - What Really Counts for Grazing Managers**

*Fourth generation rancher Charley Orchard, developed what became known as the Land EKG® Monitoring System, a land health monitoring, management information and reporting system. Since 1994, he has worked with ranchers and managers across the US, Canada, Australia, and South Pacific, helping thousands track land health, improve management skills, and decision making. Charley's background, experience, and education enable him to address many land issues and concerns. His business Land EKG Inc. has a constant driving goal: to promote sustainable business and ecological information models for those noble few, stewarding the land and feeding our nation and world.*

- **Neil Dennis - Managing Chaos to Improve Soil Health**

*Neil W. Dennis is the owner/operator of Sunnysbrae, on land his great grandfather homesteaded in 1900 and a Group member of the South East Sask. Holistic Management Group. For the past 25 years Neil Dennis has been exploring new pathways in the science of grazing cattle. Dennis' love of the land and his passion for his agricultural heritage, and sheer stubbornness to make it work, have given him fuel to forge into the realms of the unknown when it comes to soil health, grass management and cattle grazing. Dennis has evolved with his land. Once a purebred cattle and sheep producer and a mixed farm operator, (1800 seeded acres, 640 acres in forage and as many more in permanent pasture). Dennis now knows the wealth of a farm is directly dependent upon the health of the land.*

- **Glen Rabenberg - Improving Crop Quality for All**

*President, and CEO of Soil Works LLC. PhosRite, Genesis Soil Rite Calcium and GrowRite Greenhouse. When dealing with soil, Rabenberg reconfirmed that there are three things: Chemistry, Biology and Physics. All of equal importance, that must work together for healthy soil. Rabenberg has spent extensive years researching soil and plant nutrition. Combined with additional information learned from William Albrecht, Dr. Carey Reams, Dr. Millhouse, and many*



*other contributors, Rabenberg aims to "bring soil back to the way nature intended." Rabenberg continues to search for ways to cleanse the soil and aid in the production of quality food for all.*

- **Christine Jones - Fundamentals of Soil**

*Dr Christine Jones is an internationally renowned and highly respected groundcover and soils ecologist. She has a wealth of experience working with innovative landholders to implement regenerative land management techniques that enhance biodiversity, increase biological activity, sequester carbon, activate soil nutrient cycles, restore water balance, improve productivity and create new topsoil. Christine has organized and participated in workshops, field days, seminars and conferences throughout Australia, New Zealand, South Africa, Zimbabwe and the USA and has a strong publication and presentation record.*

Wow! That's quite a lineup. Looks like we're going to get right down to the roots and have a good look at the soil's role in pasture productivity.

Besides having the opportunity to learn from these world class speakers, we'll have an awesome variety of speakers and topics in our Select-A-Sessions. There will be lots to choose from, with topics ranging from grazing sheep, to feed efficient cow herds and much more.

New, and unique to this conference is a tour of Dr. Vern Baron's swath grazing research at the Lacombe Research Centre on November 27th. GWFA has been in support of and following this work for several years now. You would not want to miss this opportunity.

Our banquet speaker for this year will be **David Irvine**. He'll talk about "**Working with the Ones You Love: The Human Side of Agriculture.**"

As the Leader's Navigator™, David is a connector and a communicator. He has dedicated his life to building productive, engaging and vital cultures through authentic leadership. He has a unique ability to create a trusting learning environment through the power of his authentic presence. David inspires and guides leaders in all walks of life to connect with their authentic self, so they may, in turn, inspire and guide those they serve and love to find their authentic voice, thus enabling greatness within the culture around them. David is the best-selling author of five books that have sold more than 250,000 copies worldwide.

As you can see, this conference is not to be missed. What you can learn here can take your pasture management skills and pasture productivity to the next level. Besides having the opportunity to learn from all these great speakers you'll have the opportunity to browse up to 50 tradeshow booths with information and technologies that would be of value to all grazing managers and livestock producers in Western Canada.

To find more information on this conference go to page 12 of this issue, call me at **403-844-2645**, or go to the website at [www.westerncanadiangrazingconference.com](http://www.westerncanadiangrazingconference.com).

For registration information and to register go to: [www.westcentralforage.wix.com/wcgc](http://www.westcentralforage.wix.com/wcgc).

I'm looking forward to welcoming you to the Western Canadian Grazing Conference on November 27th, 28th and 29th at the Sheraton (used to be the Capri) in Red Deer.





# Growing Forward 2: A New Agreement Taking Shape

Since its launch in 2008, Growing Forward has helped thousands of Alberta producers, processors and other agri-businesses enhance their competitiveness, business management, food safety and environmental practices. As a result, their farms, ranches and businesses – and the industry as a whole – are stronger, more competitive and more sustainable than when Growing Forward began. It's a great start on a long-term effort.

The original five-year federal-provincial-territorial Growing Forward agreement runs until March 31, 2013. That's when a new initiative, Growing Forward 2 (GF2), is expected to start. In fact, planning for the next Growing Forward agreement has been underway since the fall of 2010.

**Setting the stage.** The Federal-Provincial-Territorial Ministers of Agriculture agreed to the vision, principles and policy framework (known as Saint Andrews Statement) for the next agriculture policy framework agreement, Growing Forward 2 (GF2), at their annual meeting in July 2011. Saint Andrews Statement (SAS) lays the foundation for the negotiation of the Multilateral Framework Agreement (MFA) and Bilateral Agreement (BA) for GF2.

Everyone agrees that the objective of GF2 should include two outcomes for industry: domestic and international competitiveness *and* adaptability and sustainability for the future. How do we get there? The agreement spells out two policy drivers for GF2: innovation *and* institutional and physical infrastructure.

For more information on the national policy objectives for GF2 or to read a copy of the Saint Andrews Statement, visit the Agriculture and Agri-Food Canada (AAFC) website: [www.agr.gc.ca/GrowingForward2](http://www.agr.gc.ca/GrowingForward2).



**Alberta's voice and views.** In Alberta, industry has contributed significantly to helping shape GF2. The views of Albertans have been gathered in a variety of ways, including:

- six industry-specific, roundtable discussions held in March 2010.
- a Young Farmers Facebook Group that was active in May and June 2010.
- ongoing consultations with the public and key stakeholders through public engagement sessions in Edmonton and Calgary in March 2011 and industry meetings.
- online access to key policy documents with opportunities to comment.

These are some of the steps Alberta is taking to ensure that Growing Forward 2 meets the needs and priorities of our producers, processors, agri-businesses and public. For ongoing information updates, visit Alberta's Growing Forward website any time.



## Director's Corner:

My name is Iain Aitken and I ranch west of Rimbey with my wife and daughter. I grew up on a multi-generational grass based beef and sheep farm in Scotland before selling up and moving to Canada in 2000.

We now run a purebred and commercial cow/calf operation and direct market a proportion of our production as grass-fed beef. We use Luining cattle - a maternal breed that was developed in Scotland to produce beef off grass economically. Having been in Alberta for nearly 40 years the breed has proven itself well adapted to the conditions.

The Grey Wooded Forage Association is a valuable resource to me as I learn how to manage forage in a very different climate than what I grew up with. I hope by serving as a director I can repay that service and continue to learn along the way from the many experienced and enthusiastic grazers within the organization.

*Iain Aitken*





Thank-you to everyone who helped to make the 25th Annual West Country Ag Tour a huge success. About 130 people participated in the exciting event. Rain and getting two buses stuck did not wash the smiles off the faces of the many tour participants.



**Barry Neumeier  
Seed Sales**

**CAP Solar**  
Clear Solutions. Natural Choice.



**Thank you to  
our Sponsors!**



**SEABORN SEEDS INC.**



**BONAVISTA  
ENERGY CORPORATION**

**Rocky Mountain House**



**ROCKY CREDIT UNION**





## Join us for a Pasture Legume Field Tour on Thursday October 4, 2012

We'll meet at the GWFA office at 12:45 PM to carpool out to a Kura Clover pasture. We'll have Dr. Jane King, Professor, Physiology of Forage Crops at the University of Alberta, talk with us about Kura Clover establishment.

We also plan to go see a field of Hairy Vetch mixed with Annual Ryegrass and a variety of other forages.

Return to the office is planned for about 4:00 PM.

\$10 for members, \$15 for non-members

Refreshments will be provided.

Please register by calling the GWFA office at 403-844-2645 by October 2, 2012.



## September 30, 2012 AgriStability Supplementary Forms Deadline Fast Approaching

### CONTACT YOUR LOCAL AGRISTABILITY FIELD ANALYST TO DISCUSS:

- Questions regarding completing your supplementary forms
- E-filing your supplementary forms
- Submitting your 2012 AgriStability Program Fee prior to the December 31, 2012 deadline
- Other questions regarding AgriStability or AgriInvest

September 30, 2012 is the deadline to file your 2011 Supplementary Forms without a penalty. December 31, 2012 is the final deadline (with penalty) to file your supplementary forms for the 2011 program year.

To receive a copy of your supplementary forms, please contact any District Office or toll free at 1-877-899-(AFSC) 2372. Your local AgriStability Field Analyst is:

**Leslie Garries**

**Lacombe, Ponoka &  
Rocky Mountain House**

Ph. 403-782-0159

**Robert Forsstrom**

**Lacombe, Stettler &  
Rimbey**

Ph. 403-782-0187

Click on Risk Management at [www.AFSC.ca](http://www.AFSC.ca) for more information.



# Kura Clover: A New Pasture Legume for Ontario?

## FACTSHEET

ISSN 1196-712X ©Queen's Printer for Ontario

Agdex#: 125 Publication Date: 09/98

Written by: Jim Johnston and Matthew Bowman -  
New Liskeard Agricultural Research Station

## What about Alberta?

### Kura Clover

Kura clover (*Trifolium ambiguum* M. Bieb.) is a forage legume that appears to be well-adapted for use in pastures. Kura clover is similar in growth habit to white clover, except that kura clover spreads underground by means of rhizomes while white clover spreads on the surface by means of stolons.

Kura clover can cause bloat similar to other clovers. Kura clover has a reputation of being extremely winterhardy and quite competitive under intensive defoliation. In 1993, we began our initial evaluation of kura clover in small plot trials. Our findings to date are reported below. Our work on kura clover is conducted in cooperation with Speare Seeds of Harriston, ON.

We established kura clover evaluation tests in 1993, 1994, 1995 and 1997. The 1995 seeding was abandoned due to poor nodulation. The species of *Rhizobium* bacteria required for kura clover does not occur naturally in Ontario soils. Proper inoculation procedures are therefore very important in achieving successful stands. The 1993 and 1994 seedings were generally slow to establish, but the 1997 seeding was quite successful in the seeding year. As with other forage legumes, proper seedbed preparation, seeding depth, and soil firming are critical in establishing kura clover. It seems unlikely that this species will frost seed successfully, although it has not been tried to date.

### Forage Yield

Based on the 1993 seeding, kura clover mixtures produced yields equal to or greater than other common pasture mixtures ([Table 1](#)). In the 1994 seedings, kura clover mixtures have produced yields similar to orchard-white clover mix-



tures but less than trefoil-brome mixtures. Kura clover is a much smaller component of the 1994 plots than in the 1993 plots (see below). In 1997, three cuts were taken on all plots, while only 2 cuts per year were taken prior to 1997.

Table 1. Average dry matter yield (kg/ha) of pasture mixtures sown in 1993 and 1994.

Treatments	1993 Seeding Ave.=94-97	1993 Seeding 1997 only	1994 Seeding Ave>95-97	1994 Seeding 1997 only
Kura pure	5400	6415	5530	6580
Kura + Orchard	5850	7558	4760	5380
Kura + Brome	6860	7853	6560	5580
White Clover + Orchard	5160	6117	5290	4990
Trefoil + Brome	5630	6345	8780	6590



## Mixture Composition

The legume content of the kura clover plots in the 1993 seeding was generally high and increased over time, while the trefoil declined ([Table 2](#)). Much of the grass present in the initial stand was killed out or damaged over the winter of 1993/1994. Kura survived quite well and has established almost complete ground cover in plots where the grass was killed.

Table 2. Percent legume in the first cut of pasture mixtures sown in 1993

Mixture	1995	1996	1997
<b>Kura pure</b>	85	99	92
<b>Kura + Orchard</b>	75	89	68
<b>Kura + Brome</b>	56	83	91
<b>Wh. Clover + Orchard</b>	24	11	31
<b>Trefoil + Brome</b>	75	60	44

In the 1994 seeding, kura clover formed only a small portion of the mixtures initially as the conditions were ideal for grass establishment that year ([Table 3](#)). Only trefoil formed a significant portion of the mixture during 1994. By cut 1 of 1996, kura had become more abundant in the

brome mixtures but not in the orchard mixtures. By cut 2 of 1997, kura had increased in the orchard mixtures as well. It is likely that under more intensive defoliation the kura content would have increased even more.

Table 3. Percent legume in the first cut and second cut of pasture mixtures sow in 1994.

	Cut 1 1994	Cut 1 1995	Cut 1 1996	Cut 2 1995	Cut 2 1997
<b>Kura pure</b>	-		65	-	66
<b>Kura + Orchard</b>	3	3	1	4	47
<b>Kura + Brome</b>	4	0	17	28	26
<b>Wh. Clover + Orchard</b>	12	5	19	34	39
<b>Trefoil + Brome</b>	46	33	36	67	68

## Quality

Pure samples of kura clover, white clover, and trefoil were sampled following the 1994 seeding. There were only minor differences in forage quality of the pure species ([Table 4](#)).

Kura clover mixtures had forage quality that was equal to or superior to other mixtures ([Table 5](#)). The quality reported below for cut 1 in 1994 is heavily influenced by the grass content of the mixtures. Since kura clover mixtures were mostly grass in that test, the quality was relatively poor.



Table 4. Quality of pure legumes, sampled 90 days after seeding.

Species	CP	ADF	NDF	Ca	P	K	Mg
<b>Kura Clover</b>	20.7	23.1	27.1	1.7	0.33	2.25	0.31
<b>White Clover</b>	23.9	21.1	24.6	1.2	0.34	2.37	0.31
<b>Trefoil</b>	19.8	21.6	27.9	1.7	0.25	2.25	0.43



Table 5. Average crude protein and fibre levels of pasture mixtures from first two harvests - 1994 to 1996 at New Liskeard

	Cut 1			Cut 2		
	CP	ADF	NDF	CP	ADF	NDF
<b>1993 Seeding</b>						
<b>Kura pure</b>	20.2	29.5	34.1	20.8	29.5	34.6
<b>Kura + Orchard</b>	19.0	31.3	38.3	19.3	31.3	39.7
<b>Kura + Brome</b>	16.4	33.7	46.7	19.6	30.6	38.2
<b>Wh.Clover + Orchard</b>	14.1	36.6	51.3	16.3	37.3	48.9
<b>Trefoil + Brome</b>	13.7	36.6	52	19.1	34.5	44.4
<b>1994 Seeding</b>						
<b>Kura pure</b>	14.6	34.2	46	16.2	34.5	42.3
<b>Kura + Orchard</b>	11.4	37.9	59.6	13.3	38.8	55.4
<b>Kura + Brome</b>	9.6	39.3	63.1	13.9	36.2	52.4
<b>Wh.Clover + Orchard</b>	12.7	35.8	56.0	13.6	36.7	55.2
<b>Trefoil + Brome</b>	13.6	38.1	57.6	14.1	39.3	54.6

## Summary

Kura clover appears to have potential as a pasture legume in Ontario. It survived the very severe winter of 1993/1994 when other pasture species were damaged.

Kura clover seems slow to establish, but good stands can be achieved with proper seedbed preparation and seeding methods. Proper inoculation of kura clover seed before planting is critical to achieving well-nodulated plants. Kura clover generally thickens with time, although a good catch of grass seems to compete quite well in younger stands (<4 years old). Kura will completely take over stands where the companion grass is winter damaged. Forage yield and quality of kura clover mixtures is generally equal to or greater than other pasture mixtures, although yields will vary with mixture composition.

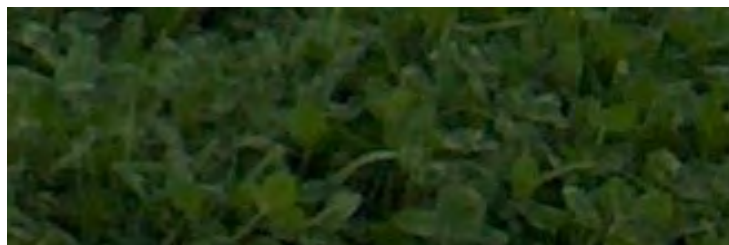
Currently studies are underway to determine the best grass mixtures and seeding rates for kura clover and tests have been established at sites where specific winter hazards are common (ie: flooding and heaving).

For more information:

Toll Free: 1-877-424-1300

Local: (519) 826-4047

E-mail: [ag.info.omafra@ontario.ca](mailto:ag.info.omafra@ontario.ca)



The following titles can be found online by searching each title, or they may very well come up by searching “kura clover.”

## Fact Sheets

[Kura Clover Living Mulch System](#)

[Kura Clover: A New Pasture Legume for Ontario?](#)\*\*

[Establishing Kura Clover Stands](#)

[Getting Kura Clover Established in Pastures](#)\*\*

[Experiences with Kura Clover in Agricultural Systems in Wisconsin](#)\*\*

## Scientific Journal Articles

[Barley and triticale underseeded with a kura clover living mulch: Effects on weed pressure, disease incidence, silage yield and forage quality](#)

[Vegetative establishment of kura clover](#)

[Kura clover forage yield contribution increases over time when seeded in mixtures with grasses in southwestern Quebec](#)





World Class Fencing at Affordable Prices

Permanent and Portable Fencing

Call or e-mail for a FREE catalog

NEW POWERFLEX DEALERSHIP!

Anchor JB Ranch @ Acme, Alberta

Jim and Barb Bauer

(403) 546-2427

jbbauer@airenet.com

www.powerflexfence.com



Professionals Prefer PowerFlex

Electrifiable Hi-Tensile Woven Wire

POWERFLEX FENCE™

# Alberta EFP

## Environmental Farm Plan

Please call **GWFA Manager, Albert Kuipers** at **(403) 844-2645** or your local County Agricultural Services staff if you would like to complete an Environmental Farm Plan. **Your EFP is required** to apply for funding to the Environmental Stewardships Plan Program of Growing Forward. Grazing & Winter Feeding, Integrated Crop Management and Manure Management are the 3 Stewardship programs available.

# AFAC

## ALBERTA FARM ANIMAL CARE

LivestockTransport.ca



Livestock Help Line & Resource Team

To report livestock care concerns CALL

**1.800.506.2273**

click here for details on ALERT



**Soil Chemistry Now Available @ Soil Foodweb Canada!**

Soil Foodweb Canada is proud to announce that effective immediately we will be offering not only biological testing but chemistry testing as well! We are using a 'Melich 1' extraction to

assess the water soluble portion of the macro and micronutrients.

Go to <http://soilfoodweb.ca/SFC-Newsletter4.4.pdf> for more information!

**Soil Foodweb Canada Ltd.**  
285 Service Rd. Box 420  
Vulcan, Alberta T0L 2B0  
403-485-6981



**Your** farm information is the **key** to making better business choices and your farm more **profitable** ...

Sign up for an **AgriProfit\$** Business Analysis today!

Call: 310-0000, then 780-422-3771  
E-mail: dale.kaliel@gov.ab.ca  
jesse.cole@gov.ab.ca  
pauline.vanbiert@gov.ab.ca

Government of Alberta  
Agriculture and Rural Development

*AgriProfit\$*

What's **New** on **Foragebeef.ca**?

See Front Page News  
New information on forage beef issues from across Canada

New and Improved Swath Grazing Manual Available Soon!  
Summarizing research done by Western Forage/Beef Group and Others

Coming Soon!  
Greenhouse Gas Research Summary as it affects the forage beef industry



[www.foragebeef.ca](http://www.foragebeef.ca)

If you're interested in starting or being involved in a **Grazing Club**, please call: **Arnold** at 780 495-4593 or **Albert** at 403 844-2645.



Agriculture et Agroalimentaire Canada

Agriculture and Agri-Food Canada



This publication is made possible by funding from **Alberta Agriculture & Rural Development & Alberta Environment and Water** via the **Agriculture Opportunities Fund (AOF)**.

Alberta



Alberta



Agriculture Opportunity Fund



**!!!Don't miss any issues of The Blade!!!**  
**Join Grey Wooded Forage Association**  
**Or renew your membership!**

**2012 –2013 Memberships are available now for \$20.00**  
**and run from April 1,2012 to March 31,2013**  
**For more information phone 403-844-2645**

Become a part of an enthusiastic group of people who are  
exploring ways to turn grass into \$\$\$.

Membership is open to anyone interested in forage production and grazing management in an  
economically and environmentally sustainable way.

Members benefit by:

- Receiving discounts on Controlled Grazing Courses, seminars, tours, farm calls and consulting on grazing management, pasture rejuvenation, feed production (annual forages) and more.
- Receiving *The GWFA Newsletter* in Spring & Fall and *The Blade* monthly.
- Receive up-to-date information on G.W.F.A. activities via The Blade.

Please mail the portion below with a cheque for \$20.00 to:

Grey Wooded Forage Association  
Box 1448  
Rocky Mountain House, Alberta  
T4T-1B1

PLEASE PRINT CLEARLY:

Renewal\_\_\_\_\_ or New Member\_\_\_\_\_  
Canada Post\_\_\_\_\_ or Email\_\_\_\_\_

Name..... Phone.....  
Address..... Fax.....  
Town. .... Prov..... Email.....  
Postal Code..... Confirm Email.....

Please give us an idea of what area of forage production you are interested in:

Controlled Grazing & Pasture Management:\_\_\_\_\_

Growing Annual Forages for Extended Grazing or Swath Grazing:\_\_\_\_\_

Growing Annual Forages for Silage or Greenfeed:\_\_\_\_\_

Growing Hay:\_\_\_\_\_ Ration Balancing:\_\_\_\_\_

Soil Biology:\_\_\_\_\_ Pasture Rejuvenation or Renovation:\_\_\_\_\_

Low Cost Cow/calf Production:\_\_\_\_\_

Environmental Sustainability:\_\_\_\_\_ Economical Sustainability:\_\_\_\_\_

COMMENTS:\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_









# **Western Canadian Grazing Conference & Trade Show**

## *Grass Roots of Grazing*

**November 28 & 29, 2012  
Sheraton Hotels & Resorts  
Red Deer, AB**

***Optional Field Tour - November 27***

*Lacombe Research Station - Swath Grazing Trials*

### ***Keynote Speakers:***

*Neil Dennis - Managing Chaos to Improve Soil Health*

*Charley Orchard - What Really Counts for Grazing Managers*

*Glen Rabenberg - Improving Crop Quality for All*

*Christine Jones - Fundamentals of Soil*

***Banquet:***      *David Irvine - Working with the Ones You Love:  
The Human Side of Agriculture*

**For more information contact:**

**West Central Forage Association** [westcentralforage@gmail.com](mailto:westcentralforage@gmail.com) **780-727-4447**

[www.westerncanadiangrazingconference.com](http://www.westerncanadiangrazingconference.com)

To register go to [www.westcentralforage.wix.com/wcgc](http://www.westcentralforage.wix.com/wcgc)