

AGENDA
CLEAR HILLS COUNTY
AGRICULTURAL SERVICE BOARD MEETING
March 13, 2017

The Agricultural Service Board meeting of Clear Hills County will be held on
Monday, March 13, 2017 at 10:00 a.m. in the Council Chambers of the County
Office, Worsley, Alberta.

1. CALL TO ORDER
2. AGENDA
3. ADOPTION OF PREVIOUS MINUTES
 - a. February 13, 2017 2
4. Delegation(s)
5. BUSINESS ARISING
6. OLD BUSINESS
 - a. Activity Report 6
 - b. Glyphosate Tolerant Alfalfa 8
7. NEW BUSINESS
 - a. Events 59
 - b. Trade Show 68
8. REPORTS
 - a. Agricultural Fieldman Report 69
 - b. Board Reports 73
9. INFORMATION & CORRESPONDENCE 97
10. CONFIDENTIAL
11. ADJOURNMENT

**MINUTES OF CLEAR HILLS COUNTY
AGRICULTURAL SERVICE BOARD MEETING
COUNCIL CHAMBERS, Worsley, Alberta
February 13, 2017**

PRESENT

Brian Harcourt	Chair
Charlie Johnson	Council Representative
MacKay Ross	Member
Baldur Ruecker	Deputy Chair
Julie Watchorn	Member
Garry Candy	Member

IN ATTENDANCE

Sarah Hayward	Community Development Clerk
Greg Coon	Agricultural Fieldman
Audrey Bjorklund	Community Development Manager

IN REGRET

CALL TO ORDER

Chair Harcourt called the meeting to order at 10:05 a.m.

AGENDA

AG17(02/13/17)

RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board adopts the agenda governing the February 13, 2017 Agricultural Service Board meeting with the following addition:

7 d. Con Expo

CARRIED.

AG18(02/13/17)

RESOLUTION by Member Ross that this Agricultural Service Board adopts the minutes of the January 9, 2017 Agricultural Service Board Meeting as presented.

CARRIED.

DELEGATION

OLD BUSINESS

Activity Report

The Board is presented with the Agricultural Service Board Activity Report.

AG19(02/13/17)

RESOLUTION by Member Ross that this Agricultural Service Board accepts the February 13, 2017 Agricultural Service Board Activity Report as presented.

CARRIED.

Towable Backhoe

The Board requested administration to bring back further information on towable backhoes.

AG20(02/13/17)

RESOLUTION by Member Ross that this Agricultural Service Board accept for information the discussion regarding a towable backhoe for the rental equipment fleet and take no further action.

CARRIED.

Glyphosate Tolerant
Wheat

The Board tabled resolution AG109(10/17/17) regarding Glyphosate Tolerant Wheat until after the 2017 Provincial Agricultural Service Board Conference to gather additional information. Has any new or

	<p>pertinent information been sourced or should the resolution be rescinded?</p>
AG21(02/13/17)	<p>RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board table motion AG109(10/17/16) regarding Glyphosate Tolerant Wheat until new information is available. CARRIED.</p>
AG22(02/13/17)	<p>RESOLUTION by Member Ross that this Agricultural Service Board direct administration to bring information to the next Agricultural Service Board meeting around Glyphosate Tolerant Alfalfa. CARRIED.</p>
<u>NEW BUSINESS</u> Events	<p>The Board is presented with events for their consideration.</p>
AG23(02/13/17)	<p>RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board to authorize Member Ross and Deputy Chair Ruecker to attend the 2017 UFA Farm & Ranch Insights on February 14, 2017 at the Pomeroy Hotel and Conference Centre in Grande Prairie, Alberta. CARRIED.</p>
AG24(02/13/17)	<p>RESOLUTION by Member Ross that this Agricultural Service Board to authorize Chair Harcourt and Member Ross to attend Soil Health and Carbon Day Workshop on February 21, 2017 at the Centennial Hall in Spirit River, Alberta. CARRIED.</p>
AG25(02/13/17)	<p>RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board to authorize Member Ross and Member Watchorn to attend the Alternative Land Use Services (ALUS) meeting on February 22, 2017 at the Dunvegan Motor Inn in Fairview, Alberta. CARRIED.</p>
AG26(02/13/17)	<p>RESOLUTION by Member Watchorn that this Agricultural Service Board to authorize Chair Harcourt and Member Ross to attend Living With Wildlife Workshop on February 23, 2017 at the Grimshaw Legion in Grimshaw, Alberta. CARRIED.</p>
AG27(02/13/17)	<p>RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board to authorize Member Watchorn, Chair Harcourt and Member Ross to attend Peace Country Beef and Forage Association annual general meeting on February 24, 2017 at the Dunvegan Motor Inn in Fairview, Alberta. CARRIED.</p>
AG28(02/13/17)	<p>RESOLUTION by Member Ross that this Agricultural Service Board to authorize all available members to attend one day and one night of the Peace Country Classic Agri-Show on March 9-11, 2017 at the Entrec Centre in Grande Prairie, Alberta. CARRIED.</p>

AG29(02/13/17)	RESOLUTION by Member Ross that this Agricultural Service Board to authorize all available members to attend the Solar Power Workshop on March 15, 2017 at the Westmark Hall in Woking, Alberta. CARRIED.
AG30(02/13/17)	RESOLUTION by Member Ross that this Agricultural Service Board accept for information that the 2017 Provincial Agricultural Service Board Summer Tour will be held July 10-14, 2017 in Old's Alberta. CARRIED.
Livestock Predation Management	Member Ross requested administration bring information to the Board regarding Kevin Van Tighem providing information and direction around livestock predation and wolf management.
AG31(02/13/17)	RESOLUTION by Councillor Johnson that this Agricultural Service Board accept for information the discussion regarding livestock predation and wolf management. CARRIED.
Veterinary Services Incorporated	The Board is presented with the Veterinary Services Incorporated (VSI) 2017 annual program summary and 2017 requisition for review.
AG32(02/13/17)	RESOLUTION by Member Ross that this Agricultural Service Board to accept for information the 2017 annual program summary and 2017 requisition details for Veterinary Services Incorporated (VSI). CARRIED.
Add in: Con Expo	Member Candy requested this be added to today's agenda.
AG33(02/13/17)	RESOLUTION by Councillor Johnson that this Agricultural Service Board accept for information the discussion around the Con Expo that will be held on March 11, 2017 in Las Vegas, Nevada. CARRIED.
<u>REPORTS</u> Agricultural Fieldman Report	At this time the Agricultural Fieldman will have an opportunity to present his report.
AG34(02/13/17)	RESOLUTION by Member Candy that this Agricultural Service Board accepts the February 13, 2017 Agricultural Fieldman Report for information as presented. CARRIED.
	Chair Harcourt adjourned for lunch at 11:47 a.m. and Member Candy Left. Chair Harcourt reconvened at 12:22 p.m.
Board Reports	At this time the Board members will have an opportunity to present their reports.

Chair Harcourt: Attend Cattle Marketing Workshop on January 15, 2017 in Manning, Alberta, Peace Agronomy Update on January 18, 2017 at the Dunvegan Motor Inn in Fairview, Alberta, Winter Watering Systems Tour on January 21, 2017 at the Hines Creek Composite School and 2017 Provincial Agricultural Service Board Provincial Conference.

Member Watchorn: Attended Peace Country Beef Congress on January 7, 2017 in Dawson Creek, British Columbia, and 2017 Provincial Agricultural Service Board Provincial Conference.

Member Ross: Attended 2017 Provincial Agricultural Service Board Provincial Conference, Cattle Marketing Workshop on January 15, 2017 in Manning, Alberta and Peace Agronomy Update on January 18, 2017 at the Dunvegan Motor Inn in Fairview, Alberta

Member Ruecker: Attended 2017 Provincial Agricultural Service Board Provincial Conference.

Councillor Johnson: Attended 2017 Provincial Agricultural Service Board Provincial Conference.

Member Candy: Attended the Winter Watering Systems Tour on January 21, 2017 at the Hines Creek Composite School

AG35(02/13/17)

RESOLUTION by Member Watchorn that this Agricultural Service Board accepts the Board members' written and verbal reports of February 13, 2017 for information. CARRIED.

INFORMATION &
CORRESPONDENCE

The Board is presented with correspondence to review.

1. Alternative Land Use Service (ALUS) Flyer – (63-10-02)
2. Agricultural Service Board Grant Application – (63-10-02)
3. Oat Marketing Opportunities – PowerPoint – (63-10-02)
4. Peace Country Beef and Forage Association – newsletter January – (63-10-02)
5. Peace Country Beef and Forage Association – newsletter February – (63-10-02)
6. Peace Country Beef and Forage Association – thank you – (63-10-02)
7. Municipal Weed Control – letter – (63-10-02)
8. The Pest Insider – newsletter – (63-10-02)

AG36(02/13/17)

RESOLUTION by Member Watchorn that this Agricultural Service Board receives the information and correspondence of February 13, 2017 as presented. CARRIED.

ADJOURNMENT

Chair Harcourt adjourned the meeting at 1:01 p.m.

CHAIR

AGRICULTURAL FIELDMAN

Clear Hills County

Request For Decision (RFD)

Meeting:	Agricultural Service Board
Meeting Date:	March 13, 2017
Originated By:	Greg Coon, Agricultural Fieldman
Title:	ACTIVITY REPORT
File:	63-10-02

DESCRIPTION:

The board is presented with the Agricultural Service Board Activity Report.

BACKGROUND:

The Activity report is helpful to administration and the board for tracking the status of resolutions and directions from the board. Items will stay on the report until they are completed. Items that are shaded indicate that they are completed and will be removed from the list once presented at the current Agricultural Service Board meeting.

ATTACHMENTS:

- Agricultural Service Board Activity Report

RECOMMENDED ACTION:

RESOLUTION by _____ that this Agricultural Service Board (ASB) accepts the March 13, 2017 ASB Activity Report as presented.

Initials show support - Reviewed by: Manager: *ABj* AgFieldman: *GC*



Senior Management Team Agricultural Service Board

Activity Report for, March 13, 2017 Page 1 of 2

Budget Items: ☐
 CAO = Chief Administrative Officer
 DO = Development Officer
 EA = Executive Assistant

Completed Items: ☐
 CSM = Corporate Services Manager
 AF = Ag. Fieldman
 CDM = Community Development Manager

MOTION	DATE	DESCRIPTION	DEPT	STATUS
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REGULAR AGRICULTURAL SERVICE BOARD MEETINGS				
December 12, 2016				
AG5	(01/09/17)	RESOLUTION by Councillor Johnson that this Agricultural Service Board recommend Council lower the rental rate on the tree spade from \$150.00 a day to \$50.00 a day to promote the establishment of shelterbelts.		Approved at Council mtg. C77-17(02/14/17)
February 13, 2017				
AG22	(02/13/17)	RESOLUTION by Member Ross that this Agricultural Service Board direct administration to bring information to the next Agricultural Service Board meeting around Glyphosate Tolerant Alfalfa.	AF	March RFD
Items in Waiting				
AG133	(12/12/16)	RESOLUTION by Member Watchorn that this Agricultural Service Board table the discussion around the CombCut Selective Mower and bring back information once the University of Saskatchewan field trial study is complete.		2020 OR 2021
AG60	(06/13/16)	RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board requires all Agricultural Service Board members to attend the Clear Hills County Agricultural Trade Show and Farmers' Appreciation Banquet.		
AG21	(02/13/17)	RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board table motion AG109(10/17/16) regarding Glyphosate Tolerant Wheat until new information is available.		

Clear Hills County

Request For Decision (RFD)

Meeting:	Agricultural Service Board Meeting
Meeting Date:	March 13, 2017
Originated By:	Greg Coon, Agricultural Fieldman
Title:	Genetically Modified Alfalfa
File Code:	63-10-40

DESCRIPTION:

The Agricultural Service Board Chairmen held a meeting January 24th, 2017, and discussion and a resolution was put forth regarding all Peace region municipalities elevating genetically modified alfalfa to a prohibited noxious weed.

BACKGROUND:

The following is an excerpt from the ASB Chairs meeting minutes held Jan 25th, 2017: "Significant discussion took place on the Peace Region's stance on RR alfalfa, and whether it was appropriate or possible to ban the product's entry into the Peace Region, some salient points and answers to questions included:

- The Peace River Regional District (B.C. side) had given a letter of support to the Peace Region Forage Association, if the Alberta Peace Region goes ahead with a ban, they will follow suit
- At least two options are available to the Municipalities, to elevate the plant within the Weed Control Act to Prohibited Noxious (requires Minister of Agriculture approval) or to pass a bylaw under the MGA to prohibit it. Consensus was that elevating under the WCA would be the preferred method as the steps a municipality can take are then clear, as are avenues of appeal etc.
- Testing for the presence of RR alfalfa could be done either through the Alberta Plant Health Lab or with in-the-field tests
- If RR alfalfa ends up in the roadside ditch and it's banned, the municipality has to destroy it could be blamed (in contravention of the Act) for allowing it to grow.
- There is potential for a confusing message being delivered, GMO alfalfa is not OK, but GMO Canola is.
- An area of California has successfully made an exempt area, how are they doing it?
- How do we know it's not already present? Do we need to test the alfalfa growing in our ditches?
- We should be trying to help save the PR Forage industry, we should stop trying to find reasons not to do this.

Robert Brochu moved the Peace Region Chairs group recommend that each Peace Region municipality elevate GMO alfalfa to Prohibited Noxious by May 1st, 2017, seconded by Josh Knelsen.
CARRIED."

There is an active motion by AAMD&C regarding banning Genetically Modified Alfalfa being lobbied at present (attached)

Initials show support - Reviewed by:

Manager:

ABJ:

AF:

GC

ATTACHMENTS:

1. AAMDC Active Resolution
2. CDN and AB forage seeds exports
3. Forage Seed Canada position statement
4. Aug 2014 article
5. Nov 2014 article
6. Apr 2015 article
7. Feb 2016 article
8. Mar 2016 article
9. Apr 2016 article
10. Dec 2016 article
11. GMO Alfalfa Fieldman Notes

OPTIONS:

1. Elevate Genetically Modified Alfalfa to prohibited noxious weed status until such time as the product is accepted by all world markets.
2. Educate ratepayers about the effects Genetically Modified Alfalfa could have on the export seed markets.
3. Accept for information.

RECOMMENDED ACTION:

RESOLUTION by _____ that this Agricultural Service Board...

Initials show support - Reviewed by:

Manager:

AF:



Resolutions Database



Resolutions Database

Resolution ID

10-16S

Year

2016

Convention

Spring

Title

Genetically Modified Alfalfa

Vote Required

Simple Majority

Category

Agriculture

Type

Requires Endorsement

Majority Needed

Simple

Current Status

Incomplete Information

Vote Results

Carried

Sponsor List

- County of Northern Lights

District

- 4 - Northern

Preamble

WHEREAS alfalfa is one of the largest crops in Canada in area with Alberta's output comprising approximately 30% of the country's total alfalfa hay and seed production; and

WHEREAS many of Alberta's forage seed producers sell products into countries that forbid the import of genetically modified (GM)/engineered alfalfa products; and

WHEREAS planting genetically modified/engineered alfalfa will pose a serious threat to the province's forage seed exports which included fourteen million kilograms of exported alfalfa seed (estimated at \$75 million) in 2014 as well as export hay, feed supplements and alfalfa sprouts for human consumption; and

WHEREAS alfalfa is the first perennial genetically modified/engineered crop that is pollinated by wild and tame insects; and

WHEREAS genetically modified/engineered alfalfa has the ability to cross-pollinate with non-GM alfalfa and there is a high risk of cross contamination due to seed escape and cross pollination which, once it occurs, will be impossible to contain; and

WHEREAS feral/wild alfalfa is rampant along ditches, fence lines, field edges, and uncultivated areas throughout Alberta and pollen and gene flow is unavoidable; and

WHEREAS alfalfa is a primary feed source for much of Alberta's organic animal agricultural production and as such contaminated feed and seed sources will jeopardize the organic status of the industry as well as threaten the booming organic export industry; and

WHEREAS neither the Canadian Food Inspection Agency (CFIA) nor Health Canada has done a complete due diligence assessment prior to the approval of genetically modified/engineered alfalfa for release into Canada, having never done a quantified government economic impact assessment on the effects of genetically modified/engineered alfalfa on Canadian export markets;

Operative Clause

THEREFORE BE IT RESOLVED that the Alberta Association of Municipal Districts and Counties request that Alberta Agriculture and Forestry and the Canadian Food Inspection Agency work with Alberta's agricultural service boards, marketing groups, Forage Genetics Canada and other relevant stakeholders to prevent the introduction of genetically modified/engineered alfalfa to the province of Alberta until there is a marketplace and consumer acceptance in Alberta's export markets including China, Japan, the European Union, and the Middle East.

Member Background

Alfalfa is the single most predominant legume grown for forage in Canada (Canadian Forage and Grassland Association, October, 2012). Alberta is a valuable producer of Canada's alfalfa crop, comprising over 30% of the country's total alfalfa output. By area, it is the third largest crop in Canada with over 25 million acres in production and more than 80% of that production is located in the Prairie Provinces (Canadian Biotechnology Action Network, November, 2015). At 15 million pounds in 2012, alfalfa seed exportation ranked third in Canadian exports.

Roundup Ready alfalfa is a genetically modified (GM) crop. Although several GM crops have already been introduced into Canada, alfalfa would be the first significant *perennial* plant to be genetically engineered and introduced into the Western Canadian environment that is naturally cross-pollinated by insects and grows wild throughout the world. The economic benefits of GM alfalfa crops are unclear at this time – they have not produced higher yields, herbicide costs have risen and exported alfalfa products have been rejected due to contamination.

As some countries have strict importation laws forbidding GM products, the presence of GM alfalfa in Canadian hay exports could potentially put an end to export markets for Canadian grass and forage seed growers. In 2014, China was Canada's second largest importer of alfalfa seed and China presently has *zero tolerance* for GM alfalfa products. China blacklisted three American hay exporters in 2014 and rejected hundreds of container loads of hay due to the detection of Roundup Ready alfalfa (The Western Producer, November, 2014). As hay is partially comprised of alfalfa, U.S. hay prices have dropped by about 12% due in part to the actions of China.

Mountain Sunrise Feed Co., a small hay exporter in the U.S., had been shipping about half its product (1,000 tons per month) to China but has now stopped because of the rejection of several of its cargoes. The owner has been forced to lay off employees and is only using 50% of its production capacity due in part to reduced exports. Anderson Hay & Grain, one of the largest U.S. hay exporters, stated that, "it's had a huge impact on our business" (The Wall Street Journal, December, 2014).

Heather Kerschbaumer, president of Forage Seed Canada, personally experienced a \$20,000 loss three years ago when Japan detected a canola seed in a shipment of timothy seed from her farm and subsequently cancelled their contract. She is concerned about Roundup Ready alfalfa contaminating her alfalfa seed product, which would result in an additional loss of those markets. "We find alfalfa in 60 to 70 percent of the lots shipped out of the Peace [Region]. If it is genetically modified, we would lose all those markets as well."

Kerschbaumer recently visited the Imperial Valley in California, where the three blacklisted hay producers are located. "They told us ***if you can't keep it out of Canada, keep it out of the West. If you can't keep it out of the West, you should keep it out of Alberta. If you can't keep it out of Alberta, you should keep it out of the Peace because there will be benefits and bonuses paid on the seed that is produced that is GE free***" (The Western Producer, November, 2014).

Canada's flax industry has been devastated due to contamination of GM material. In 2009, even though the GM variety of flax (CDC Triffid) had been de-registered by the University of Saskatchewan, about 3.5% of the farmer and elevator flax samples tested positive and contamination was found in exports to 35 countries that had not approved GM flax. As a result Canada's European market, which makes up 60% of its flax market, was closed. Canada's flax production declined significantly from 930,000 tonnes in 2009 to 518,200 tonnes in 2012. The source of GM contamination was never identified.

As illustrated, it is highly probable that GM alfalfa contamination will occur if it is introduced into Alberta. Non-GM alfalfa can be contaminated by GM alfalfa through: seed escape, pollinator-mediation, and feral/ volunteer alfalfa. More specifically, contamination can occur in purchased seed, seed spillage during planting, harvest and transport, insufficient cleaning of equipment, hay transport, animal vectors, dormant seed, and volunteer alfalfa growth.

Alfalfa is pollinated primarily by leafcutter bees but also by honeybees, wild bees and other native pollinators that are capable of traveling great distances and have unpredictable ranges. Cross-pollination occurs in nature when pollinating insects inadvertently transfer pollen from one plant to another while gathering nectar. Since perennial plants such as alfalfa are capable of flowering multiple times per year, the risk of genetic contamination by cross-pollination is significantly higher than annual crops.

In addition, Alberta's variable climate and annual precipitation (Alberta Water Portal) limit the 'best management practices' for production of GM alfalfa that indicate cutting hay prior to 10% bloom in order to contain gene flow and reduce contamination. Fields that are in hay production one year and then seed production the next, or vice-versa, often due to the weather patterns, may also add to the problem of contamination.

New genetically modified varieties of alfalfa currently being marketed in the U.S., such as HarvXtra, a low-lignin/Roundup Ready, "stacked trait" alfalfa is being marketed as a great improvement over existing varieties, since the low-lignin trait allows hay to be cut later in the season (at least 50% bloom) without loss of feed quality, thus reducing the effects of weather on timely management and encouraging growers of mixed hay or alfalfa hay fields to take advantage of more tonnage per cut of hay. However, as noted earlier, this increases the threat of contamination through

pollen transfer and gene flow from the blooming GM alfalfa fields to non-GM nearby fields or wild populations (even roadside alfalfa plants) within insect flying distance (from three to five miles). It is worth noting that there are currently non-GM alfalfas, such as the Alforex variety 'Hi-Gest', being marketed in the U.S. that have also been bred with low-lignin qualities and, therefore, the 'advantage' is available in non-GM alfalfas as well.

Alberta's thriving organic agricultural industry could be jeopardized by allowing the introduction of GM alfalfa into Alberta. As per the Canadian Organic Products Regulations and Standards, which came into force on June 1, 2009, GM ingredients in organic products is prohibited, regardless of whether or not those GM ingredients are registered (Agriculture and Agri-Food Canada). The Canadian organic food market is positioned for exponential growth. According to the census completed on May 16, 2006 there were 2,629 farms with organic production in Alberta, 5.3% of all farms in the province. The predominant group of organic products grown in Alberta was hay or field crops (60.5% of the province's organic farms), (Statistics Canada). In 2012 organic food sales in Alberta totaled \$416 million which was second only to British Columbia in the organic fruit market and second only to Ontario in prepackaged groceries (Global News, August 2014).

In order to be classified as "organic", all agricultural products used for feeding livestock must be certified organic to the respective program and cannot contain any GM material (Alberta Organic Producers Association). Dairy cows, in particular, are fed large amounts of alfalfa feed; although beef livestock, hogs, poultry, sheep/lamb and goats may also consume feed containing alfalfa. Therefore, any traces of GM alfalfa found in organic hay or feed supplements would critically damage these markets, as well as the organic dairy industry.

Additionally, there is a significant market, both domestic and export, for organic alfalfa seed for hay production which would be destroyed if GM material was detected. ***Canada currently has high quality seed and a reputation for clean organic products*** (Saskatchewan Organic Directorate). However, the introduction of GM canola into Canada in 1995 has devastated the organic canola industry. The unintended presence of GM canola in organic canola fields was not detectable before harvest, nor could it be prevented due to the prevalence of GM canola on prairie farms (Canadian Biotechnology Action Network, April 2013). "Every organic grain farmer has lost the right to grow organic canola free of GMO contamination risk. Every organic grain farmer has lost the ability to sell organic canola into Europe" (Saskatchewan Organic Directorate, May 2006).

At this time there is a very real threat to Alberta's alfalfa industry if Roundup Ready alfalfa is introduced into the province. Indeed, despite assurances that Roundup Ready alfalfa would enhance weed control options and flexibility, it appears that the emergence and increased presence of herbicide-resistant weeds due to increased use of Roundup has created a need for the use of a wider variety of herbicides on a crop that typically does not require application of herbicides. According to USDA data, 90% of all alfalfa produced by farmers in the U.S. was previously grown without the use of herbicides.

The cost of herbicide is high, foreign export markets are tightening and, in turn, producers stand to lose millions of dollars in sales as markets become more limited due to contamination of genetically modified biotypes. At this time, genetically modified / engineered alfalfa must not be introduced into Alberta.

List of Sources

Alberta Organic Producers Association, *Alberta Organic Certification*, Online.

Alberta Water Portal, *Climate in Alberta*, Online.

Agricultural Biotechnology in California Series, *Roundup Ready Alfalfa: An Emerging Technology*, Online, 2004.

Beckie, H., *Status of Herbicide Resistance in Canada*, Online, January 2014.

Canadian Biotechnology Action Network, *The Case for Preventing the Introduction of Roundup Ready Alfalfa*, Online, April 2013.

Canadian Forage and Grassland Association, *Alfalfa in Canada*, Online, Oct. 24, 2012.

Global News, *Is Alberta the Next Organic Hotspot?*, Online, Aug. 18, 2014.

Government of Alberta/ Alfalfa Seed Commission of Alberta, Online, April 2015.

Inter Press Service News Agency, *U.S. Report of GE Alfalfa Contamination was 'Inevitable'*, Online, Sept. 13, 2013.

Saskatchewan Organic Directorate, *Roundup Ready Alfalfa & Organic Agriculture*, Online.

Saskatchewan Organic Directorate, *"The Apellants Factum"*, Online, May 29, 2006.

Statistics Canada, *Organic Farms*, Online.

Sustainable Pulse, *Center for Food Safety Sues USDA Over GM Alfalfa Approval*, Online, March 14, 2014.

The Wall Street Journal, *China's Hard Line on Biotech Burns U.S. Hay*, Online, Dec. 15, 2014.

The Western Producer, *Roundup Ready in Alfalfa Exports 'Catastrophic'*, Online, Nov. 28, 2014.

Wong, D., Alberta Agriculture and Rural Development, *2011/ 2012 Canadian Grass and Legume Seed Exports*, Online, Oct. 1, 2012.

AAMDC Background

The AAMDC has no active resolutions directly related to this issue.

Government Response

Agriculture and Forestry: The regulation of genetically modified (GM) crops is coordinated between the Canadian Food Inspection Agency (CFIA) and Health Canada. GM crops go through intensive regulatory reviews in Canada that are based on international standards and guidelines. These plants cannot enter the marketplace unless a rigorous assessment by the CFIA and Health Canada determines these plants are safe for use as food or feed, and that they are as safe for release into the environment as other conventional plant varieties already being grown.

The federal regulatory assessment process does not assess social or economic factors, such as marketplace and consumer acceptance. The CFIA and Health Canada regulate for safety and efficacy of GM products, but are not responsible for evaluating need. To date, the CFIA and Health Canada have not enacted restrictions on GM crop producers.

Our government operates under federal legislation and regulations when it comes to GM crops, and supports the federal government's science-based evaluation system for GM crops. We also support the responsible and appropriate development and adoption of biotechnology in agriculture to allow for the commercialization of innovative products, while safeguarding public interests, such as human food safety, human health, animal feed safety, animal health and welfare, and environmental well-being.

Although the CFIA and Health Canada have approved certain GM alfalfa technologies as safe for food, feed, and the environment, we recognize there are concerns regarding potential market access implications, as GM crops are not universally accepted throughout the international market.

Development

While the Government of Alberta response defers responsibility on this issue to the Canadian Food Inspection Agency and Health Canada, the AAMDC has not yet received a response to this resolution from the federal government. This resolution is assigned a status of **Incomplete Information**, and the AAMDC will continue to follow up with the relevant federal ministries and agencies.

Federal Ministries and Bodies

Ministries

- Agriculture and Forestry

Provincial Boards and Organizations

Active/Expired

Active

AB Forage Seeds Exports.

Alberta Exports of Forage Seeds, Crop Year Ending June 30																Alberta Exports of Forage Seeds, Crop Year Ending June 30															
Quantity		Jul 11-Jun 12	Jul 12-Jun 13	Jul 13-Jun 14	Jul 14-Jun 15	Jul 15-Jun 16		Value		Jul 11-Jun 12	Jul 12-Jun 13	Jul 13-Jun 14	Jul 14-Jun 15	Jul 15-Jun 16		Millions of Canadian Dollars		Jul 11-Jun 12	Jul 12-Jun 13	Jul 13-Jun 14	Jul 14-Jun 15	Jul 15-Jun 16									
	Alberta Total exports by HS	16,883,790	17,759,848	16,072,757	14,588,705	17,795,140		Total Alberta Exports by HS		33.60	42.32	43.65	45.77	62.87				33.60	42.32	43.65	45.77	62.87									
12092319	Creeping Red Fescue Seeds, For Sowing, O/T Certified	5,568,647	6,293,971	6,487,408	7,608,973	9,358,284		12092319	Creeping Red Fescue Seeds, For Sowing, O/T Certified	7.82	13.16	17.06	17.75	23.57		7.82		7.82	13.16	17.06	17.75	23.57									
12092110	Lucerne (Alfalfa) Seeds, For Sowing, Certified	984,344	1,403,226	1,462,374	1,740,604	3,665,339		12092110	Lucerne (Alfalfa) Seeds, For Sowing, Certified	4.08	5.50	6.92	8.43	19.30		4.08		4.08	5.50	6.92	8.43	19.30									
12092999	Seeds Of Forage Plants, For Sowing, Nes	1,056,627	1,620,916	1,612,319	1,438,477	1,141,237		12092999	Seeds Of Forage Plants, For Sowing, Nes	2.84	5.44	5.04	4.47	3.84		2.84		2.84	5.44	5.04	4.47	3.84									
12092361	Seeds, Timothy Grass, For Sowing, Certified	742,657	1,202,658	941,308	1,399,817	1,060,283		12092961	Seeds, Timothy Grass, For Sowing, Certified	1.82	3.37	2.70	3.89	3.78		1.82		1.82	3.37	2.70	3.89	3.78									
12092311	Creeping Red Fescue Seeds, For Sowing, Certified	5,684,413	2,409,673	1,104,027	657,195	663,998		12092311	Lucerne (Alfalfa) Seeds, For Sowing, O/T Certified	0.52	1.01	4.17	2.31	2.79		0.52		0.52	1.01	4.17	2.31	2.79									
12092190	Lucerne (Alfalfa) Seeds, For Sowing, O/T Certified	98,572	207,637	822,285	396,784	450,000		12092529	Seeds, Wheatgrass, Nes, For Sowing	1.20	1.51	0.95	2.83	2.13		1.20		1.20	1.51	0.95	2.83	2.13									
12092320	Alfalfa Clover Seeds, For Sowing	302,238	355,675	147,735	109,912	189,860		12092921	Seeds, Wheatgrass, Crested, For Sowing	0.85	2.84	1.22	1.14	1.44		0.85		0.85	2.84	1.22	1.14	1.44									
12092321	Seeds, Bromegrass, Crested, For Sowing	280,333	635,447	271,070	190,274	189,860		12092311	Seeds, Bromegrass, Meadow, For Sowing	1.44	0.99	0.16	0.27	1.21		1.44		1.44	0.99	0.16	0.27	1.21									
12092311	Seeds, Whitegrass, Meadow, For Sowing	191,733	271,085	141,476	153,874	179,331		12092312	Creeping Red Fescue Seeds, For Sowing, Certified	8.81	4.27	2.31	1.30	1.09		8.81		8.81	4.27	2.31	1.30	1.09									
12092312	Seeds, Bromegrass, Smooth, For Sowing	409,881	173,929	39,774	33,368	165,520		12092310	Alfalfa Clover Seeds, For Sowing	0.53	0.17	0.61	0.47	0.97		0.53		0.53	0.17	0.61	0.47	0.97									
12092390	Fescue Seeds, Nes, For Sowing	135,845	123,921	112,605	190,010	136,520		12092320	Alfalfa Clover Seeds, For Sowing	0.37	0.43	0.33	0.59	0.55		0.37		0.37	0.43	0.33	0.59	0.55									
12092330	Meadow Fescue Seeds, For Sowing	18,357	24,802	55,888	128,523	42,706		12092330	Fescue Seeds, Nes, For Sowing	0.03	0.03	0.08	0.39	0.26		0.03		0.03	0.03	0.08	0.39	0.26									
12092999	Seeds, Timothy Grass, For Sowing, Other Than Cert	-	19,585	2,000	-	37,000		12092391	Meadow Fescue Seeds, For Sowing	0.44	0.63	0.18	0.27	0.21		0.44		0.44	0.63	0.18	0.27	0.21									
12092991	Seeds, Wild Rye, For Sowing	110,998	125,237	39,640	40,458	20,457		12092969	Seeds, Wild Rye, For Sowing	-	0.05	0.01	-	0.13		-		-	0.05	0.01	-	0.13									
12092319	Red Clover Seeds, Nes, For Sowing	114,629	51,889	49,283	19,505	19,722		12092319	Seeds, Timothy Grass, For Sowing, Other Than Cert	0.21	0.07	0.15	0.07	0.12		0.21		0.21	0.07	0.15	0.07	0.12									
12092320	Tall Fescue Seeds, For Sowing	176,713	62,459	178,840	22,771	10,664		12092210	Red Clover Seeds, Nes, For Sowing	0.30	0.52	0.56	0.32	0.06		0.30		0.30	0.52	0.56	0.32	0.06									
12092320	Chloris Seeds, Nes, For Sowing	86,412	148,031	137,664	64,320	9,956		12092290	Chloris Seeds, Nes, For Sowing	0.24	0.11	0.26	0.04	0.02		0.24		0.24	0.11	0.26	0.04	0.02									
12092320	Rye Grass Seeds, Perennial, For Sowing	92,922	34,793	71,977	14,878	3,402		12092320	Tall Fescue Seeds, For Sowing	0.23	0.10	0.17	0.17	0.01		0.23		0.23	0.10	0.17	0.17	0.01									
12092319	Seeds, Bromegrass, Nes, For Sowing	161,264	102,095	280	-	227		12092520	Rye Grass Seeds, Perennial, For Sowing	0.45	0.37	0.01	0.22	0.01		0.45		0.45	0.37	0.01	0.22	0.01									
12092330	Seeds, Bent Grass, For Sowing	2,268	11,022	-	962	-		12092950	Seeds, Bromegrass, Nes, For Sowing	0.22	0.11	0.05	0.05	-		0.22		0.22	0.11	0.05	0.05	-									
12092100	Seeds, Lucerne (Alfalfa), for sowing	-	-	-	-	-		12092950	Seeds, Orchard Grass, For Sowing	0.02	0.05	-	-	0.00		0.02		0.02	0.05	-	-	0.00									
12092210	Seeds, Red clover, for sowing	-	-	-	-	-		12092330	Seeds, Bent Grass, For Sowing	-	0.01	0.08	-	-		-		-	0.01	0.08	-	-									
12092211	Red Clover Seeds, Double Cut, For Sowing	-	1,386	26,172	-	-		12092211	Red Clover Seeds, Double Cut, For Sowing	0.07	0.03	0.03	0.05	-		0.07		0.07	0.03	0.03	0.05	-									
12092220	Sweet Clover Seeds, For Sowing	24,722	8,619	15,468	-	-		12092220	Sweet Clover Seeds, For Sowing	0.57	0.06	0.01	-	-		0.57		0.57	0.06	0.01	-	-									
12092240	White Clover Seeds, For Sowing	-	-	-	-	-		12092100	Seeds, Lucerne (Alfalfa), for sowing	-	-	-	-	-		-		-	-	-	-	-									
12092310	Seeds, creeping red fescue, for sowing	-	-	-	-	-		12092210	Seeds, Red clover, for sowing	-	-	-	-	-		-		-	-	-	-	-									
12092400	Kentucky Blue Grass Seeds, For Sowing	-	-	-	-	-		12092310	White Clover Seeds, For Sowing	-	-	-	-	-		-		-	-	-	-	-									
12092510	Seeds, rye grass, for sowing	238,880	142,953	3,109	-	-		12092310	Seeds, creeping red fescue, for sowing	-	-	-	-	-		-		-	-	-	-	-									
12092600	Seeds, Timothy grass, for sowing	-	-	-	-	-		12092500	Kentucky Blue Grass Seeds, For Sowing	-	-	-	-	-		-		-	-	-	-	-									
12092690	Seeds, Timothy grass, for sowing, certified	-	-	-	-	-		12092550	Seeds, rye grass, for sowing	-	-	-	-	-		-		-	-	-	-	-									
12092920	Seeds, Bromegrass, for sowing	-	-	-	-	-		12092600	Seeds, Timothy grass, for sowing	-	-	-	-	-		-		-	-	-	-	-									
12092930	Seeds, Wheatgrass, for sowing	-	-	-	-	-		12092610	Seeds, Timothy grass, for sowing, certified	-	-	-	-	-		-		-	-	-	-	-									
12092940	Seeds, Bird's-Foot Trifol, For Sowing	77,306	37,353	11,936	4,346	-		12092690	Seeds, Timothy grass, for sowing, other than cert	-	-	-	-	-		-		-	-	-	-	-									
12092990	Seeds of forage plants, for sowing, nes	-	-	-	-	-		12092910	Seeds, Bromegrass, for sowing	-	-	-	-	-		-		-	-	-	-	-									
	Source: Statistics Canada, International Merchandise Trade							12092920	Seeds, Wheatgrass, for sowing	-	-	-	-	-		-		-	-	-	-	-									
								12092930	Seeds, Bird's-Foot Trifol, For Sowing	-	-	-	-	-		-		-	-	-	-	-									
								12092990	Seeds of forage plants, for sowing, nes	-	-	-	-	-		-		-	-	-	-	-									
Prepared by: Alberta Agriculture and Forestry, Economics and Competitiveness Branch, Statistics and Data Development Section																															

Canadian Exports of Forage Seeds, Crop Year Ending June 30						Canadian Exports of Forage Seeds, Crop Year Ending June 30					
Quantity						Value					
	Jul 11-Jun 12	Jul 12-Jun 13	Jul 13-Jun 14	Jul 14-Jun 15	Jul 15-Jun 16		Jul 11-Jun 12	Jul 12-Jun 13	Jul 13-Jun 14	Jul 14-Jun 15	Jul 15-Jun 16

POSITION STATEMENT of FORAGE SEED CANADA INC.

Position Statement on Recombinant DNA Technology and Subsequent Genetically Engineered (GE) Alfalfa and GE Forage Seeds including Roundup Ready™ Alfalfa for

**Forage Seed Canada Inc.
Box 2000
Arborg, MB R0C 0A0**

Whereas it is the position of Forage Seed Canada Inc. that the CFIA has failed to do a complete due diligence assessment in the approval of GE alfalfa for release into Canada, by neglecting to factor in potential market losses or market impact by allowing GE traits in alfalfa into Canada before widespread market acceptance;

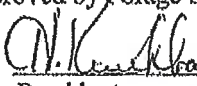
Therefore, the following is the position of Forage Seed Canada Inc. on recombinant DNA technology and subsequent genetically engineered alfalfa and genetically engineered forage seeds, including Roundup Ready™ alfalfa:

We do support a regulatory environment based on sound science that openly communicates clear and meaningful information to stakeholders. We do not support testing or commercialization that poses a risk for release of a specific transgene or any forage seed transgenes (ie the Roundup Ready™ alfalfa transgene) into the environment or commercialization of any transgenic variety including Roundup Ready™ alfalfa or stacked traits in Canada until such time as:

- Federal, Provincial, and Municipal regulatory approval, consumer acceptance by the majority of each individual market, marketplace acceptance by not only governments, but also the majority of buyers, seed multipliers, end users, and their customers, in not only Canada, but also in the export markets including United States, the European Union, China, Japan, Mexico, South America, and the Middle East;
- a strong identity preservation system for alfalfa varieties is in place in Canada;
- a rapid, cost-effective, sensitive, accurate test (based on each export market's specific requirements) for the specific transgene is available;
- issues including legal or fiduciary pertaining to responsibility, liability, loss of markets, insurance, and consequences of contamination are clarified;
- a current economic impact assessment on how this product would impact all forage seed markets and other industries that forage seed has an impact on, including GE sensitive export markets is done;
- a liability clause is in place to compensate affected stakeholders fully for lost seed markets due to contamination by gene transfer, or contamination by uncontrolled feral alfalfa populations, and also for monetary losses and costs due to rejected seed shipments due to GE contamination.

Until such time as all the above stipulations are in place, Forage Seed Canada Inc. opposes the release of this technology into western Canada.

Approved by Forage Seed Canada Inc. as of February 12, 2015.

Per: 
President



Peace Region Forage Seed Association
Box 685
Taylor, BC V0C 2K0

May 31, 2012

Peace Region Forage Seed Association Position on Roundup Ready Alfalfa

The general membership of the Peace Region Forage Seed Association strongly opposes the introduction of genetically engineered alfalfa into Canada. The association, representing virtually all of the growers and marketers of seed for forage grasses and legumes in the BC and Alberta Peace region, has a major concern that international market opportunities may be greatly reduced if such GMO crops are allowed to grow in the Peace Region of Alberta and British Columbia. The concern is not only that the markets for forage grasses and legumes will be damaged, but also that export markets of such products as hay and alfalfa pellets will be reduced. Members fear that cross pollination and mixing of the GMO trait in normal handling would result in disqualification of their products for the GMO-free requirements of many of their key customers.

North Pine Farmers Institute
RR 1, Site 16, Comp 102
Fort St John, BC V1J 4M6

March 3, 2015

Peace Region Forage Seed Association

The North Pine Farmers Institute supports the Peace Region Forage Seed Association in their goal of keeping western Canada free of genetically modified Alfalfa seed.



North Pine Farmers Institute

POSITION STATEMENT

Position Statement on Recombinant DNA Technology and Subsequent Genetically Modified Alfalfa including Roundup Ready™ Alfalfa

Approved by the following organizations on September 11, 2008

**Canadian Alfalfa Seed Council
Atlantic Forage and Corn Team
British Columbia Forage Council
Irrigated Alfalfa Seed Producers Association (Alberta)
Manitoba Forage Council
Manitoba Forage Seed Association
Peace Region Forage Seed Association
Saskatchewan Alfalfa Seed Producers Association
Saskatchewan Alfalfa Seed Producers Development Commission
Saskatchewan Forage Council**

The following is the position of the above-named organizations on recombinant DNA technology and subsequent genetically modified alfalfa, including Roundup Ready™ alfalfa.

We recognize that the future of biotechnology in agriculture is dependent upon consumer acceptance and that recombinant DNA technology (the transfer of DNA from one species to another) may well be accepted when benefits to consumers, producers, the environment, and human health are demonstrated.

We also recognize that consumers are not united in understanding and acceptance of products from genetically modified crops produced via recombinant DNA technology.

We support a regulatory environment based on sound science that openly communicates clear and meaningful information to stakeholders. We will not support testing that poses a risk for release of a specific transgene (e.g. the Roundup Ready™ alfalfa transgene) into the environment or commercialization of any transgenic alfalfa variety including Roundup Ready™ alfalfa in Canada until such time as:

- the variety receives Canadian regulatory approvals for food, feed, and environmental safety.
- regulatory approval for the specific transgenic alfalfa variety (e.g. Roundup Ready™ alfalfa) is obtained in Canada and in the following export markets: the United States, the European Union, China, Japan, Mexico, and South America.
- an identity preservation system for alfalfa varieties is in place in Canada.
- a rapid, cost-effective test for identification of the specific transgene is available.

A Line in the Dirt

Why farmers want to keep genetically modified alfalfa out of Alberta

Alex Gillis



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In January, Heather and John Kerschbaumer left their 7,500-acre farm near the mighty Peace River and flew to the Golden Nugget casino in Las Vegas for a conference about alfalfa. The Kerschbaumers have been growing alfalfa, one of Canada's most important crops, for four generations. According to Heather Kerschbaumer, who's been to the Western Alfalfa Seed Growers Winter Conference four times, the gathering is a learning experience. Every year she settles into her chair to listen to Mark McCaslin, the vice-president of research for Forage Genetics International (FGI), give pretty well the same lecture. This year's title was the same as last year's: "The Future of Genetic Improvement in Alfalfa." That future, however, recently became a lot closer—and it deeply concerns the Kerschbaumers and many other farmers.

The future began with on-farm trials of genetically modified alfalfa in the Prairies in 2007. The subsequent seven years of fighting have shown Kerschbaumer that few outsiders understand the stakes, though they have huge implications for anyone who grows or eats food. FGI created GM alfalfa using a patent by Monsanto, the planet's largest seed and chemical company. The Canadian Food Inspection Agency approved the seed in 2005 and permitted its sale in 2013, but FGI hasn't released it in Canada. FGI and Monsanto want to make the seed available to farmers immediately, but farmers' concerns are holding them up. Kerschbaumer, for example, doesn't want GM alfalfa at her farm, Golden Acre Seeds. A board member of Forage Seed Canada, she says that most alfalfa seed farmers in Canada—and dozens of organizations, from the Alberta Organic Producers Association to

the National Farmers Union—agree with her. The problem is: Once GM alfalfa is planted in Canada, farmers may not have much of a choice about whether it grows on their land.

GM alfalfa is unique: The world's first GM perennial, it grows on its own each year, like a weed, mainly because of bees and water but also because small amounts of it can end up in packages of non-GM seeds. Monsanto and FGI claim the seed won't spread to non-GM fields, but farmers keep hearing stories that it's doing just that in the US. If the GM seed spreads in Canada, farmers stand to lose a lot. Unwanted GM alfalfa could devastate farms that export hay, alfalfa seeds, pellets and other products, because most importing countries, including the EU, don't allow GM alfalfa. The US is the only country that has approved GM alfalfa seeds for cultivation and sale.

Meanwhile, the GM seed's spread could all but destroy organic dairy, organic livestock and other organic farms that grow or use alfalfa, since organic certification could be extremely difficult with GM alfalfa around. This concern is particularly important in Alberta, which, along with BC and Ontario, boasts the most developed organic markets in Canada.

Alfalfa, the "queen of forages," accounts for almost 30 per cent of Canada's cropland. Farmers feed high-protein alfalfa to their animals and grow it to replenish their soils. Alberta, Manitoba and Saskatchewan farmers grow more than 80 per cent of Canada's alfalfa (and almost all of our alfalfa seeds), and farmers export approximately \$80-million in alfalfa hay, seeds and pellets to other countries. Canada has approved GM soybeans, canola and field corn, among other crops, and is considering giving the green light to GM apples and salmon, but not since the fight against GM wheat (10 years and counting) has there been such a protest against a Monsanto seed technology.

Heather Kerschbaumer once made a list of the benefits and costs of GM alfalfa for a presentation to farmers. The bullet list of risks was too long for one slide. The list of benefits had only one bullet: weed control. GM alfalfa contains a gene that resists a Monsanto herbicide called glyphosate, or Roundup. Farmers plant the seed and spray fields with Roundup, which kills every plant except the Roundup Ready alfalfa (RRA). The seed/chemical combo is a fast way of weeding. FGI's Aaron VanEe, a farmer from Rosemary, explains that some hay producers need weed control when they want fields of 100 per cent alfalfa. "Some farmers like to grow alfalfa by itself as a protein source to be blended with other crops," VanEe says.

However, very few farmers grow 100 per cent alfalfa. Most grow it as hay and feed it to livestock—weeds and all. Kurt Shmon, president of Imperial Seeds, a Manitoba-based seed wholesaler, told me that the likely costs of introducing GM alfalfa to Canada "tremendously overshadow" the benefits to a select few farmers who want greater weed control.

For starters, the benefit of weed control may be short-lived. A growing body of reports, including a 2013 study of two decades worth of US Department of Agriculture (USDA) and US Environmental Protection Agency data, found that US farmers using GM crops initially reduce their need for herbicides and pesticides but ultimately end up using more due to the rise of glyphosate-resistant weeds—so-called "superweeds." Some weeds are becoming so strong they can withstand numerous chemical doses, and so sturdy they can damage harvesting equipment. The spread of these tenacious weeds has been called "a crisis" in US agriculture; one University of Iowa weed scientist calls it "Darwinian evolution in fast-forward."

Contamination may be the more immediate concern for prairie farmers, as Canada's experience with GM flax seeds suggests. In 2009 GM flax spread to non-GM fields in Canada and ended up in shipments to 35 countries. GM flax was illegal to sell at the time (after on-farm trials ended) and had been rounded up and destroyed years before, so people were startled when it spread out of control. Canada was a world leader in flax production and export, and the contamination cleanup cost farmers and the Canadian government millions of dollars. No one has found out how or why GM flax spread. A similar situation happened with GM canola between 1995 and 1998.

But proponents of GM alfalfa claim contamination won't happen this time. Monsanto and FGI point to a new coexistence plan and a stewardship agreement that will supposedly allow GM and non-GM farms to coexist. The Canadian Seed Trade Association (CSTA), an Ottawa-based lobbyist for the two companies and other biotechs, released a "Coexistence Plan for Alfalfa Hay in Eastern Canada" in 2013, listing more than a dozen "best-management practices" to prevent cross-contamination, including mowing wild alfalfa from roadsides and ditches, cleaning machinery and equipment and talking to neighbours to find out who's growing GM alfalfa. In addition, Canadian farmers will have to sign Monsanto's stewardship agreement for alfalfa before buying or planting the seed, just as their US counterparts do, agreeing to a list of practices that are said to decrease contamination.

But no government enforces coexistence plans, and alfalfa spreads in spite of stewardship agreements. Last summer, for example, a broker rejected the alfalfa hay of a farmer in Washington state because it was contaminated with GM alfalfa. The USDA confirmed the contamination but said it was a "commercial issue" and wasn't the government's responsibility. The broker rejected the alfalfa for export. "That case showed that no one has control of the gene," says Shmon. The Washington farmer paid the price for that mistake, one that's repeating itself for various kinds of GM organisms in the US, especially on organic farms. This year, a survey of 1,500 organic farmers by Food & Water Watch and the Organic Farmers' Agency for Relationship Marketing concluded that "the risks and the effects of GMO contamination have unfairly burdened organic and non-GMO farmers with extra work, longer hours and financial insecurity." One-third of respondents had already dealt with GM contamination on their farms. Of those, over half had seen product rejected by buyers for that reason, at a median cost of \$4,500 per truckload.

Lucy Sharratt, coordinator at the Canadian Biotechnology Action Network (CBAN), a coalition of 17 organizations, thinks Monsanto, FGI and the CSTA's plans and agreements contain more fantasy than reality. For example, in some provinces, farmers aren't allowed to mow ditches. And what farmer has the time and money to survey neighbours in a two-kilometre radius to find out who's growing what? "The industry made up a list of impractical measures for farmers to follow and called it a coexistence plan," she says. "It's not based on science or reality. Conventional and organic farmers alike are against it, across Canada."

As a result of expense and plain fear, farmers avoid reporting contaminations. "I know from my own experience: No one talks about it if it occurs," says Weldon Hobbs, an Alberta farmer who breeds and sells leafcutter bees. In his 40 years in the industry, he's provided bees to alfalfa farms across the continent. Hobbs recalls two cases that briefly got attention because people complained. In 2011 a Saskatchewan farmer bragged to neighbours about planting GM alfalfa without a licence from Monsanto. To its credit, the company immediately investigated and forced him to terminate the field. In another case, in 2012, a farmer near Brooks found GM alfalfa in his 75-acre alfalfa field after he'd planted FGI's non-GM alfalfa seed. In response to his concerns, FGI and Monsanto helped

him remove the roughly 13 GM plants per acre. FGI later reported that the parent seed it had sold to him met seed purity requirements for Canada, in spite of the contamination. Trish Jordan, public and industry affairs director at Monsanto Canada in Winnipeg, says such events are "isolated cases." Hobbs says a study by scientist Stephanie Greene shows otherwise.

Greene is a plant physiologist with the US National Centre for Genetic Resources Preservation. She led a GM alfalfa study funded by the US government, independent of biotechnology companies, that's astounding many farmers. In 2011 she discovered that 15 per cent of 2,300 randomly selected roadside sites in Washington, Idaho and California had wild alfalfa. That wasn't surprising. Alfalfa grows like a weed, after all. But of the alfalfa found, 21 per cent tested positive for Monsanto and FGI's transgene. Greene hadn't expected such a high number, because farmers had grown GM alfalfa on 80,000 acres only for a year or two before a lawsuit in 2007 prohibited them from selling the seeds. In the four years between the prohibition and Greene's study, farmers had plowed down GM seed fields, with only GM hay fields allowed to continue growing. "We don't know where the transgenes came from in 2011," Greene told me. They could have come from pollen flow from those hay fields, or from two years (2005–2007) when the US allowed farmers to plant GM seed alfalfa, or from some other source, she says. Greene will publish her groundbreaking study this fall.

Reactions from biotech companies have been cautious. Monsanto's Jordan, for example, says Greene's work is preliminary. "As such, we are not prepared to offer detailed comment," she tells me.

Contamination isn't only about wild alfalfa near ditches. Kerschbaumer explains that timothy, clover, brome grass and other crops could become contaminated. She tells the story of a Japanese company that wanted a special variety of timothy seed grown here and shipped to Japan. The Kerschbaumers contracted a farmer to grow and harvest the seed, and they cleaned and bagged it afterwards, making it as pure as possible. A government lab tested a 10-gram sample and found no GM seeds. But the Japanese company asked for a second test, this time of a 25-gram sample. The Kerschbaumers found one GM canola seed in that test, probably because a couple of stray canola plants had grown in the timothy field. The Japanese company rejected 44,000 pounds of timothy seeds.

Kerschbaumer and the grower were floored. If they'd known that the seed was GM, then the farmer could have yanked the canola before harvest. In the end, the seed was sold in Alberta, but at a much lower price than it would have fetched from the Japanese company. And this isn't an isolated case; a Canadian government study found traces of alfalfa in 468 samples of different crops. In Kerschbaumer's case, she and the grower lost \$22,000 because of one GM seed.

Organic producers could lose a lot more. GM alfalfa could wreck Canadian organic farming if it spreads, because certification by Canadian Organic Standards doesn't allow any GM content whatsoever. The milk or meat of a cow that eats GM alfalfa cannot be certified organic. The additional cost of buying alfalfa from non-GM regions or countries would make local organics more expensive for the consumer. A similar situation has happened with canola. More than 97 per cent of Canada's canola is now GM, and because canola is easily spread by wind, most organic farmers don't bother trying to grow it because certification is nearly impossible.

In 2012 Canadian organic markets grew to \$3.7-billion, tripling since 2006 and far outpacing the growth of other agri-food sectors, says Ashley St. Hilaire, acting executive

director of the Canadian Organic Growers. Nearly 60 per cent of Canadians buy at least some organic products every week. Resistance against GM alfalfa has been particularly strong in Quebec, which is the most important milk producer in the country and provides most of Canada's organic milk. Associations and co-operatives representing nearly all Quebec farmers recently declared that they "strongly deplore" Canada's approval of GM alfalfa and voted unanimously that commercialization of GM alfalfa should be prohibited.

Kerschbaumer, Shmon, Hobbs and many other farmers want to do the same in Alberta. Soon after Monsanto and FGI began running trials with Gold Medal Seeds, a company that FGI had bought in Brooks in 2007, Kerschbaumer joined farmers in Alberta and Manitoba to create Forage Seed Canada. "Three of us met with Agriculture Minister Gerry Ritz in 2009," she tells me. "We were trying to educate him, alert him and get more information about the trials. We also met Wayne Easter, the Liberal agriculture critic. Both passed blame on the other and neither did anything." Ritz still hasn't replied to the 20 questions the farmers left for him five years ago, even though he promised to.

Imperial Seed's Shmon thinks the federal government is too cozy with the biotechs and that bureaucrats are taken in by biased studies. "Canada's approach to approving GM seeds is based on dubious scientific studies claiming that the genes won't spread much," Shmon explains. Many of those studies are either funded/staffed by a biotech company with a conflict of interest or aren't peer reviewed for mainstream scientific publications. Shmon would like to see more studies like the USDA's Stephanie Greene's, studies that are independent of biotech funding and staff.

"This isn't only about alfalfa," Kerschbaumer adds. "It's about the milk, cheese, ice cream and yogurt that comes from the cow that eats the alfalfa. It's about consumers who want to be able to buy their meat from a farmers market or their neighbour down the road because they like to know how their food is grown." CBAN's Sharratt agrees that consumers will have less control over their food and the processes that go into making it. "Consumers generally want more control over the food they eat, and GM alfalfa is a prime example of a lack of control," she says.

Last year, farmers and consumer groups led protests in 38 communities across Canada, including in Calgary, Camrose, Edmonton, Grande Prairie and Red Deer. When FGI and Monsanto postponed the launch of GM alfalfa from this year to 2015 or 2016, some groups saw it as a victory, but Monsanto's Trish Jordan says that protesters don't have an effect. "No biotech company reacts to opponents of genetic technology, or activists," she explains. However, they do react to farmers and seed companies. Victor Lefebvre, a director at Pickseed, a company that plans to sell GM alfalfa in Canada, says widespread resistance among farmers and seed companies is one reason that the seed won't be released this year. And as Imperial Seed's Kurt Schmon demonstrates, not every seed company is on board with GM alfalfa.

Before Monsanto makes the seed available for sale, though, farmers, consumers and environmental groups are calling on the federal government to conduct a full assessment of the environmental, economic and social impacts of GM alfalfa. "Incredibly, there's still no consultation with farmers or consumers, at any level of government, before GM seeds are approved," says CBAN's Sharratt.

Other levels of government could step in, says Shmon. "Alberta can ban GM alfalfa as a noxious weed, and municipalities and counties can take action," he says. He and Kerschbaumer also suggest creating an "opportunity zone," similar to one in Imperial County, California, the only place in North America where FGI and Monsanto have agreed

not to distribute GM alfalfa (until July 2018). When Kerschbaumer was in Las Vegas earlier this year, Imperial County farmers advised her to keep GM alfalfa out of the Peace Region or out of Alberta if she could, "because you'll get premium prices for GM-free alfalfa," they told her. "GM alfalfa is spreading and you'll make a lot of money from the GM-free version," they said. Shmon adds that this is already happening; US companies are hiring more Albertan farmers to grow non-GM crops, because there are fewer contamination risks up here.

Recently, however, the stakes got higher. FGI and Monsanto announced a plan, pending approvals, to launch a "stacked" variety of GM alfalfa that contains two genetic traits, one that makes the crop resistant to Monsanto's herbicide and a second that decreases lignin, allowing farmers to leave it in fields longer to increase yields. "The preliminary market poll shows that the stacked [variety] is going to be a bigger market than the individual product of reduced lignin," Jose Arias, FGI's director of alfalfa seed production, told a journalist at the Western Producer newspaper in April. But letting the crop grow for a longer time means 20 to 50 per cent of the field will bloom, increasing the chances that bees will find GM pollen and raising the likelihood of contamination. Monsanto and FGI still insist that GM fields can coexist with non-GM fields, even at 20 to 50 per cent bloom. One of their FGI-supported studies backs this.

"It's a crock," Shmon says. "They can't have it both ways. At those bloom rates, the gene spreads."

Heather Kerschbaumer sometimes feels like she's beating her head against a wall, but she isn't giving up. In what's become an annual ritual, she plans to attend the next alfalfa conference in Las Vegas, in January 2015. The Golden Nugget will again host. Kerschbaumer expects she'll attend FGI's same speech about the future.

In one of her notes after a previous conference, she wrote, "It's up to every county, every municipality, every part of Canada to fight back." FGI and Monsanto may be close to getting GM alfalfa in the ground in Western Canada—FGI's tagline is "We Never Stop"—but they're facing growing resistance from Alberta farmers such as Kerschbaumer. "We have to look out for ourselves," she wrote. "I'm not sure exactly how, but we're working on it one step at a time." #

Alex Gillis is an investigative journalist who teaches feature writing at Ryerson

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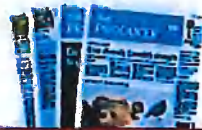
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Roundup Ready in alfalfa exports 'catastrophic'

Posted Nov. 26th, 2014 by [Mary MacArthur](#)

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Genetically modified traits in alfalfa have become a hot export issue. | File photo

China market closed | U.S. exporters blacklisted because of GM presence in the crop

BROMONT, Que. — The discovery of Roundup Ready alfalfa in global hay exports should be on Canadian farmers' radar, says a Canadian hay exporter.

Ed Shaw, who exports forage around the world, including to China, said three American hay exporters have been blacklisted from exporting hay to China; and hundreds of container loads of hay have been turned away after Roundup Ready alfalfa was found in the loads.

"In the export market, it has become a really hot topic item with the Chinese market. The Chinese have zero tolerance for GMO," Shaw said during a discussion about the introduction of Roundup Ready alfalfa in Canada at a recent forage conference. "It's catastrophic."

Forage Genetics International, which has the right to sell Roundup Ready alfalfa in Canada, seeded 11 test plots in Quebec and Ontario this year and is looking to expand its test locations and studies next year.

Roundup Ready alfalfa is registered and allowed to be grown in the United States, but Shaw said U.S. exporters have been blacklisted because of the genetically modified crop.

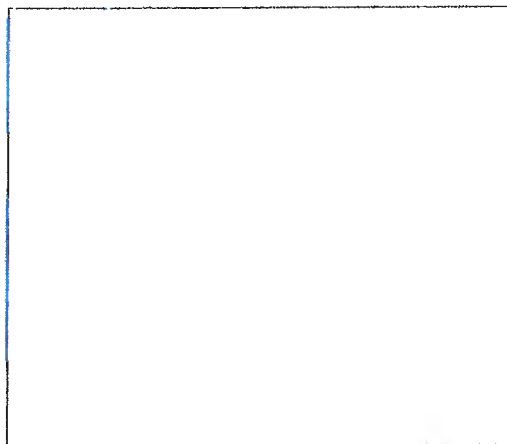
"They have had three strikes against them and the U.S. is considering totally shutting down the Chinese market until we get something established," he said.

"China has zero tolerance and I mean zero tolerance, not several parts per million but zero tolerance."

Shaw is worried that Canadian hay exporters will be shut out of the market if GM canola seed is found in hay crops.

"I am afraid that if we start testing our alfalfa for zero tolerance, I bet we would fail," he said.

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"Now the USDA (U.S. Department of Agriculture) and the Chinese are trying to work on a tolerance level. If you have canola field next to an alfalfa field and get some trash, it's going to check positive on the forage."

Forage Seed Canada president Heather Kerschbaumer said a container load of her farm's timothy hay was rejected because of the discovery of one canola seed in a 25 gram sample destined for Japan three years ago.

"(It) was enough to cause the company we had the contract with to cancel our contract," she said.

"We lost \$20,000 because of one canola seed."

It's a troubling trend for Canadian grass and forage seed growers, who export thousands of tonnes of seed around the world. The discovery of a Roundup Ready alfalfa seed in an alfalfa, timothy, red clover, brome or fescue shipment would put an end to all export markets.

Kerschbaumer said her Golden Acre Seed Co. had nine non-Roundup Ready alfalfa samples tested last year for the presence of Roundup Ready alfalfa, and all tested negative.

"We find alfalfa in 60 to 70 percent of the lots shipped out of the Peace. If it is genetically modified, we would lose all those markets as well."

Kerschbaumer said she recently visited the Imperial Valley in California, where counties have outlawed the growing of Roundup Ready alfalfa because of their large vegetable production. Alfalfa is used in the rotation with vegetable crops.

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Kerschbaumer said she returned from that trip with a glimmer of hope that there are ways to stop Roundup Ready alfalfa from being introduced into Canada, at least in Western Canada.

"They told us if they can't keep it out of Canada, keep it out of the West," she said.

"If you can't keep it out of the West, you should keep it out of Alberta. If you can't keep it out of Alberta, you should keep it out of the Peace because there will be benefits and bonuses paid on the seed that is produced that is GE free."

Shaw said the three blacklisted hay producers are from the Imperial Valley. The rules that prohibit the production of Roundup Ready alfalfa don't stop the hay from being processed in the area.

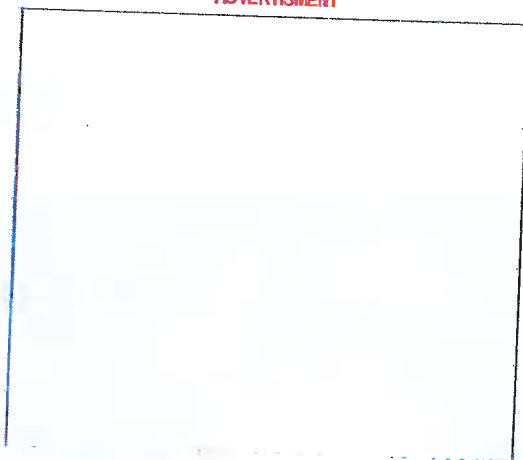
"What has been processed there has been contaminated. They're bringing hay in from God knows where. You can't grow it, but processors can still bring it in."

Kerschbaumer said Forage Seed Canada wants to raise awareness of the issue and encourage farmers to test their alfalfa seed before it's planted.

"It's a big awareness issue," she said.

"You want the cattle people to be aware not to plant it. They could be unknowingly planting this stuff and contaminating fence lines and ditches, which could contaminated someone's seed fields."

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Forage seed industry wants Western Canada to be a GM alfalfa-free zone

Seed growers say keeping GM alfalfa out of Western Canada would save current export markets and open the door to additional sales



By **Jennifer Blair** FOLLOW
Reporter

Published: April 6, 2015

Crops, Forages

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Keeping Roundup Ready alfalfa out of Western Canada is critical, says Fairview seed grower and Forage Seed Canada president Heather Kerschbaumer. Photo: File

Alfalfa seed growers in Alberta could stand to gain a huge market advantage over their neighbours to the south — if the industry can keep GM alfalfa out of Western Canada.

"We've got access to potential market gains by picking up markets that are possibly going to be lost in the States," said Heather Kerschbaumer, a Fairview-area seed grower and president of Forage Seed Canada.

"The longer we can keep it out, the more of an advantage we're going to have for marketing."

Alfalfa is the fourth-largest crop, in acreage and value, in the U.S., but contamination from genetically engineered crops in "supposedly GE-free zones" in California and Washington are raising red flags with Europe, China and other buyers.

ADVERTISEMENT "In China, zero means zero," Kerschbaumer said at the Alberta Forage Industry Network AGM in mid-March.

"They have no tolerance. It doesn't matter if you can test it down to one-one-thousandth of a per cent. If they find any kind of a trace, it's not acceptable."

She has also seen first hand how GM contamination can affect forage seed markets.


Last month, she lost a 16,000-pound sale of yellow blossom sweet clover to northern Europe because some GM canola seeds were found in the shipment, even though it was certified organic. The farmer who grew the seed says he hasn't grown canola for 15

years, Kerschbaumer said.


- **More from the Alberta Farmer: Alfalfa seed: a growing industry**

This wasn't her first lost sale due to GM contamination. A 40,000-pound shipment of timothy seed destined for Japan was lost after one canola seed was found in a 25-gram sample collected by the Canadian Food Inspection Agency. The seed cut the shipment's value in half, from \$1 a pound to just 50 cents.

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"So we lost \$20,000 just from one canola seed," she said.

Big business

Collectively, American hay exporters are facing huge losses. The potential market losses of hay exports to China alone could reach up to \$20 billion, she said.

"Canada could pick up on some of these markets that they're losing," said Kerschbaumer. "There's big potential."

But it all depends on keeping GM alfalfa out of Western Canada.

"In Canada, we have it coming into the East, but we're wondering about the West," she said.

"It's probably never going to be completely stopped, but we're wondering if it could be slowed down."

Five Roundup Ready alfalfa varieties were approved for Canada in 2013 and were set to hit shelves in Eastern Canada last spring. Monsanto and marketer Forage Genetics International held off due to "push-back" from the industry, but almost a dozen test

plots were planted in Ontario and Quebec last year, with more to come this year.

That's a problem for growers in Western Canada, where the risk of contamination is greater, said Kerschbaumer.

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'GE-free zone'

The forage seed industry is looking to have Western Canada designated as a "GE-free zone" where clean seed can be produced.

"Seed companies are already starting to move seed production out of the U.S. up into Canada because they need clean seed stocks, even for their own varieties that they're trying to market into Europe. They still need to have a safe area."

Kerschbaumer said she suspects that's partly why Canada grew 5,300 more acres of certified alfalfa seed in 2014 compared to 2013.

The plan has some precedent, she said. In 2011, Monsanto and Forage Genetics International agreed not to commercialize Roundup Ready alfalfa in California's Imperial Valley, the largest exporter of hay in the U.S.

And as seed suppliers for the hay industry, the forage seed industry could make a strong argument to keep GM alfalfa out of Western Canada.

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"We have everyone on our shoulders," said Kerschbaumer. "If we don't have clean seed, we're not going to have clean hay."



She said she's not personally opposed to GM technology, but what matters is that customers in China, Japan, the Middle East, Mexico, and South America are.

Those markets will be lost forever once Roundup Ready alfalfa is grown in Western Canada, she added.

"It's not something we can get back," Kerschbaumer said. "If we decide in five years that's all OK, I'm OK with that. I'm not

against it either, except I think they should slow down and make sure it's not going to hurt us."

ABOUT THE AUTHOR

Jennifer Blair

Reporter



Jennifer Blair is a Red Deer-based reporter with a post-secondary education in professional writing and nearly 10 years of experience in corporate communications, policy development, and journalism. She's spent half of her career telling stories about an industry she loves for an audience she admires--the farmers who work every day to build a better agriculture industry in Alberta.

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GM alfalfa may already be in Alberta

Accidental contamination of foundation seed heightens fears that forage and hay markets worth hundreds of millions are in peril

By Alexis Kienlen and Glenn Cheater

Published: February 29, 2016
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Alberta is the largest producer of alfalfa seed, but growers' overseas customers have a zero-GM tolerance policy. Photo: Andrea Toman

Genetically modified alfalfa has somehow made its way into Alberta — raising fears that western Canadian forage seed growers and hay exporters could be shut out of markets worth hundreds of millions of dollars.

Alberta Farmer recently learned that a batch of foundation seed contaminated with Roundup Ready alfalfa was sent to a forage seed grower in southern Alberta four years ago. And that almost certainly means the hugely controversial GM variety is present in the province, said the grower.

"I should have made a big scene, but I didn't want to and it's four years later," said the grower, who spoke on the condition of anonymity.



Although this is the only confirmed case, the contamination was only discovered by accident and more farms likely grew GM alfalfa and never realized it, he said.

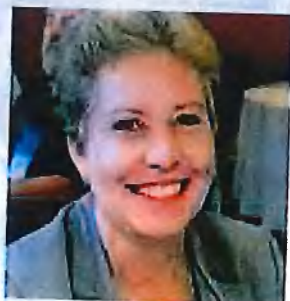
"It's in the system — if it's in one, it's in more than one," he said. "I should have been more vocal right at the start."

If so, it could be the start of the nightmare scenario long feared by many forage growers in Western Canada, which accounts for nearly all

of the country's 327,000 acres of forage seed. (Alberta has 40 per cent of those acres.) Canada exports \$280 million of forage seed annually and another \$100 million worth of alfalfa and timothy hay, meal, and pellets.

But most of the world's major buyers — including Europe, China, Japan, and the Middle East — have a zero-GM tolerance policy for both forage seed and hay, and test on a parts-per-million level.

Although the southern Alberta grower took extensive measures to wipe out the GM alfalfa on his farm, any other growers who received other batches of the contaminated foundation seed would not have known it was present. And if allowed to flower, its transgenic traits could be easily spread, said Heather Kerschbaumer, a forage seed grower from Fairview and president of Forage Seed Canada.



"The concern is that pollen would contaminate wild alfalfa, which would then contaminate the crops — it would slowly move and become a pest," said Kerschbaumer.

"The problem is because alfalfa is pollinated by bees and the pollen moves from the fields of hay where it is blooming. The concern is

"It's hard to find a fenceline or the edge of a pipeline or a ditch where there isn't some alfalfa growing. There is wild alfalfa everywhere."

Surprise discovery

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10,000 forage seed acres — but last year announced it wanted to create a national coexistence plan, since forage alfalfa has been approved for sale by CFIA. That move has been strongly opposed by Forage Seed Canada, which argues coexistence is not possible because pollen cannot be confined to one field.

The case in southern Alberta is a stark example of how difficult it is to keep the GM genie in the bottle.

Foundation seed is created from breeder's seed and, in theory, should be a pure variety. The southern Alberta grower said it was only a fluke that he learned his batch of seed contained trace amounts of Roundup Ready alfalfa.

"We put in a field and we seeded too much," said the farmer. "We had a 10-inch drill and we upped the rate and it canopied in and choked all the alfalfa out. The stand was really thin. We had all-risk insurance and there wasn't enough plant density to insure so we took it out."

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Roundup Ready alfalfa was developed a decade ago by an Idaho alfalfa-breeding company, Forage Genetics International, using Monsanto technology. It has been approved for Canada, but Forage Genetics International needs to develop a stewardship agreement — also known as a "coexistence" plan — before it can be marketed here.

The company has developed a coexistence plan for Eastern Canada — which only has about

That was when he got the surprise of a lifetime.

After spraying the field with Roundup, the grower said he was stunned to see that about 100 plants across the entire field had survived. He sprayed the survivors with a broadleaf herbicide, and summerfallowed the field for a year to ensure any subsequent survivors were



plowed down, before putting it back into alfalfa seed.

'Someone has screwed up'

Although he immediately contacted Forage Genetics International and company officials inspected the field, he said he neither asked nor was told if other batches of contaminated foundation seed were sold to other growers.

An official with Forage Genetics International said he wasn't familiar with details of the Alberta incident but said contamination can happen.

"If someone buys seed from the U.S., they can end up with Roundup alfalfa," said Mike Peterson, the company's lead for Global Traits. "If a seed company doesn't have good, correct quality controls, anything can happen. It's the same thing where you could have a conventional soybean in Ontario and it could be loaded up with traits. It does happen and someone has screwed up."

"There are controls in place. This is a breakdown in quality control."

The contaminated seed would have to have come in illegally from the U.S., he said.

"Companies can be lousy companies, and not have formal, rigid quality controls and test their seed," said Peterson. "That's one way it can happen. It's not approved for sale or use in Western Canada but it is in the U.S., so you could bring it across from Idaho or Montana or whatever."

"We take those things very seriously, so we don't think there is any GE alfalfa in Western Canada right now."

There is a "very easy" test for genetically modified alfalfa and if a commercial seed producer follows proper protocols, there should not be a problem, he added.

"It's really just a breakdown in process," said Peterson. "We all know what needs to be done to prevent it. It's not hard. It's just companies being lazy, is what it is."

(It is also possible to bring seed across the border without a licence — which allegedly happened in 2011 in Saskatchewan — but that was not the case in the Alberta incident.)

Seed versus hay

But Kerschbaumer said she fears the accidental release of Roundup Ready alfalfa is a forerunner of what's to come.

Forage Genetics International, which established a coexistence plan for Eastern Canada several years ago, is now doing the same in Western Canada, she said.

"We're hoping that that means that they're not going to start selling it in Canada this spring," said Kerschbaumer. "They keep pushing to get this (the coexistence plan) in place, and saying they want it in place before the beginning of March. It's a rush to try to get something this serious figured out."

But Peterson said the coexistence plan is only for production of GM hay — not alfalfa seed — and that's a critical difference.

"We're not going to have GE seed production," he said. "That's where the greatest risks occur, from pollen flow. The coexistence planning that we've been working on is if we have GE hay next to a conventional hayfield."

"I don't want to say never, but FGI does not have short-, medium-, or long-term plans to see GE alfalfa seed in Canada. That's not on the table right now. (Western Canada) is a valuable conventional seed production area, so we don't want to change that at this time."

Contamination is unlikely in hay production because a field of GM alfalfa would have to flower at the same time as a nearby conventional field, and then the conventional field would then have to be left unharvested for another 60 to 70 days before it went to seed, Peterson said.

Moreover, his company has not said it will start selling Roundup Ready alfalfa for hay production in Canada, he added.

"If we did sell GE alfalfa for hay production, the intent would be initially, that it would only be done from Ontario east because there's no seed production there," said Peterson. "But we have not even announced that we're selling traits in Canada yet."

'People are worried'

But the incident four years ago shows the challenge of preventing contamination entirely, said Kerschbaumer.

Most forage seed growers aren't opponents of genetic modification, but are fearful of the prospect of losing profitable overseas customers.

"Alberta is the biggest seed production area," she said. "This is risking all of our seed markets. That's why there are people worried about it."

A newly released USDA study on "transgenic feral alfalfa" will only fan those fears.

The study surveyed 4,580 fields in California, Idaho, and Washington state where conventional alfalfa seed was being grown. About 10 per cent of fields had feral or rogue varieties, and in 27 per cent of those cases, the rogue varieties were transgenic. The study didn't look for causes — both seed spillage and pollinators are possible causes — but its author said it "confirms that genetically engineered alfalfa has dispersed into the environment."

The USDA study also put some numbers on a problem that has been evident for years.

Roundup Ready alfalfa has been widely grown in the U.S., but not in California's Imperial Valley. Growers there produce more than \$100 million of hay annually, much of it for export, and successfully fought to make the valley a "GM-free" zone.

Nevertheless, several loads of hay from the Imperial Valley exported to China have tested positive and three major growers have reportedly been "blacklisted" by Chinese buyers.

Assessing the risks

Both the Imperial Valley situation and the incident in southern Alberta prove that contamination is inevitable, said Kerschbaumer.

She added that her exports have been tested and although none had transgenic alfalfa contamination, one container load of timothy hay was rejected by a customer four years ago after a single canola seed was found in a 25-gram sample.

Peterson concedes there are risks. The greatest risk is when Roundup Ready seed is being produced near a non-GM seed operation.

"There's hay to hay, hay to seed, and seed to seed," he said. "Seed to seed is the worst. If you have GE seed next to non-GE seed, that's something that we're not proposing at all."

"Even having GE hay next to conventional seed is a little bit risky without putting significant isolations between them."

But the contamination threat can be managed, said an official with the Canadian Seed Trade Association.

There are some different opinions about whether we should have the technology or not," said Crosby Devitt, the organization's executive director. "From a perspective of the Canadian Seed Trade Association and those that represent all sides of the industry, the best way to go forward is to find a way to coexist. Everybody's ideas and concerns are valid. Let's get them all out on the table and work together on it."

His organization has not been told if or when GM alfalfa is coming to Western Canada.

"We will find out at the same time as everyone else," said Devitt. "We do know that the product is approved and there isn't any barrier to bringing the product into Canada or selling it."

Nevertheless, he added, "what we expect is that it is likely not going to be in Western Canada."

Developing a coexistence plan for Western Canada does not mean Roundup Ready hay will be grown on the Prairies, added Peterson.

"This will be the national coexistence plan and we're revising the Eastern (Canada) plan to make it a national plan," he said. "That's the process right now, and we're in the middle of doing that."

ABOUT THE AUTHOR

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Alfalfa growers uneasy with anti-GMO stance

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Most producers are comfortable with the technology but believe it poses a threat to alfalfa seed and forage exports

BROOKS, Alta. — Alberta's alfalfa seed growers commission has a clear stance on genetically modified Roundup Ready alfalfa. It is against introduction until there is greater market acceptance.

However, that stance comes with a certain level of discomfort.

Many alfalfa seed growers also grow GM canola, GM sugar beets and GM corn. The technology has provided weed control, insect resistance and yield benefits that they have embraced in other crops, and that makes some of them uncomfortable with refusal of GM alfalfa.

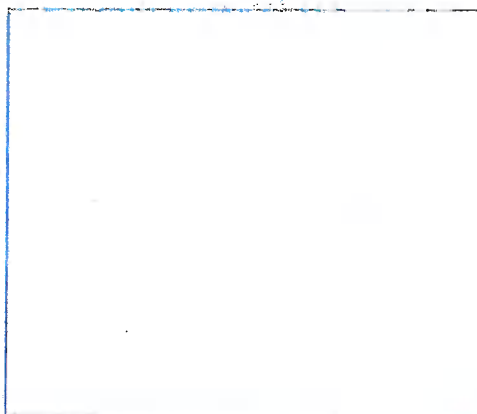
"We understand the technology very well and we understand that we can't take a hypocritical stance and say we don't support an industry tool that reduces pesticide loads on the environment and on the people who use them and on the crops," said commission president Brian Slenders.

"We understand the beneficial nature of them. The problem is that darn little bee. He doesn't know how to stay at the fence row. I'm not sure, after seeing a lot of problems in the States, how you maintain a co-existence agreement."

Studies in the United States indicate GM alfalfa has spread to feral alfalfa and potentially to tame varieties.

In Canada, Forage Genetics International (FGI) has the distribution rights to Roundup Ready alfalfa.

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Slenders said the commission received a letter from FGI last week stating it has no intention of introducing Roundup Ready alfalfa for production in Western Canada, which sits well with the organization.

Most Canadian-grown alfalfa seed is used domestically and in the U.S., but alfalfa forage is exported to many countries.

China, Japan, South Korea, the European Union and countries in the Middle East will not accept GM product.

Edward Shaw, director of market development for Canada's largest forage exporter, Green Prairie International of Lethbridge, told stakeholders in a letter earlier this year that GM alfalfa would have major repercussions for the company.

"To date, there is no interest in the Asian markets for any GMO forage products," Shaw wrote.

"Any contracts issued with our customers in Japan, Korea and China always state that GMO forage product is unacceptable. The same is true with our largest importer of alfalfa, the Middle East."

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China now has a trade protocol with Canada on alfalfa, so export volumes have the potential to increase dramatically in the next two to three years. Shaw said introduction of GM alfalfa could jeopardize that potential.

The Alberta Association of Municipal Districts and Counties passed a resolution two weeks ago aimed at preventing the introduction of GM alfalfa to the province.

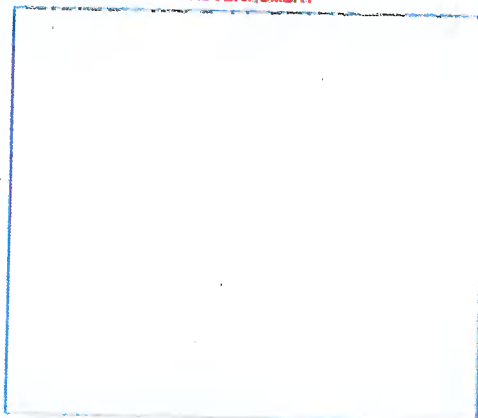
Background to the resolution also stated concern over potential loss of forage export markets.

Darren Nikkel, former alfalfa seed commission president, said growers share that concern, but he also acknowledged the need for continued forage research.

"It is a very sensitive subject," said Nikkel.

Contact barb.glen@producer.com

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NEWS LOCAL

April 2016

Part 3

GMO alfalfa: What's it all about?

Friday, April 22, 2016 9:26:54 MDT AM



Heather Kerschbaumer

On March 15, a resolution (16-10S) to keep GMO alfalfa out of Alberta until market acceptance was voted on and passed by Alberta's rural councillors. There are many who are trying to understand the whole story. What's this all about? So to continue, this is Part 3.....

GMO/GE alfalfa – why worry about this new technology on the world stage? Are there other countries who might use this as a trade barrier? Is it a political decision by other parts of the world?

Perhaps. Not really a great answer, but it is possible. Whether we believe it's "only a matter of time" before other countries accept it or not, what should we do in the meantime?

I don't think we can dispute that there are other GE crops being exported. It's a known fact. However, and this is really important, so pay attention: If our international customers say they don't want GE alfalfa at this time, in any business plan I've ever read, it seems to me it says, "the customer is always right!" Whether science says we are right or wrong, whether our country insists we know best, whether it declared safe, I guess we either satisfy our customers, or they buy from someone else. And so far they still can.

Then there's the accountability issue. Who is responsible when GE alfalfa traits start showing up where they're not supposed to be? Who is liable? What happens when others possibly lose their livelihoods like the organic guy down the road? Or the hay seller? Or the seed

who buys it, who plants it, who grows it. We have to sign a contract that says so. We accept that responsibility to control it. And when I s my land, that responsibility will go with the land – yikes! Another can of worms...

So what if a couple farmers still want to grow this stuff – why can't everyone coexist – be happy – live and let live? Why not make some special areas to give it a try?

They're making it work it in the United States, we keep hearing. They have "grower opportunity zones" (GOZs) where GE alfalfa is allowed. And is it working? Nope. Contamination is showing up in many places outside the GOZs. Some wild alfalfa is testing positive. Not much of a surprise!

So why not learn by their experiences? Talk to them, ask their opinions. Find out how to make it work. Seems logical, so I did. Two year ago. I asked, not one or two, but a room full of farmers at a meeting in Las Vegas. Not too many answers. But after, during coffee, during lunch, in the evening, when it was one-on-one (actually two-on-two, since we had spouses with us) they came and talked.

They talked, we listened. They told us how it's affecting their prices and contracts – in a negative way.

"Don't bring it to Canada", they told us. "Keep it out as long as you can. If you can't keep it out of Canada, keep it out of the West. If you can't keep it out of the West, keep it out of Alberta. If you can't keep it out of Alberta, keep it out of your area. Coexistence isn't working."

We decided to investigate further. We went to the Imperial Valley of California – the only designated GE alfalfa free area in the U.S.

They grow vegetables – lots of them. And alfalfa hay – huge quantities of pristine alfalfa hay, destined for markets that don't allow GE alfalfa. They didn't want to lose that. So we know keeping it out is possible....

Another topic that most of us don't even consider – glyphosate herbicide resistance. Weeds that don't die when we spray with glyphosate. This happens when we use the same chemical over and over – Roundup. What will likely happen if we add alfalfa to the li of crops to spray? Faster resistance and more weeds that don't die!

Not only that, I haven't even touched on the fact that our organic industry has been growing by double digit percentages each year. GE alfalfa would be a huge handicap in many ways for organic farmers.

This GE alfalfa issue is a big issue. It needs to be understood. It needs to be discussed. There should be input, and I mean real input from those who will be affected. So far, there isn't a solution to the problem of contamination. Bees will fly and pollinate. That's it. Coexistence is a myth.

So I'm very proud as an Albertan to say that someone in this province is listening. Our counties and municipal districts in Alberta have made a statement by passing this resolution – to do some due diligence and investigate the impact GE alfalfa will have – before we let this genie out of the bottle.

And I thank them very much!

– Heather Kerschbaumer, Forage Seed Canada

Oh, and by the way, I know other parts of Canada are watching.

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HOVER FOR FLYER



HOVER FOR FLYER



Adoption of biotech alfalfa lags other GMO crops

Mateusz Perkowski • Capital Press

Published on December 7, 2016 12:46PM

Adoption of genetically engineered alfalfa among farmers has lagged behind other biotech crops, with the vast majority of U.S. acreage remaining conventional, according to USDA.

Only about 13.5 percent of harvested U.S. alfalfa acreage is genetically modified, compared to more than 90 percent of corn, soybeans, cotton, canola and sugar beets acres, according to a new USDA report that cites 2013 farmer surveys.

It appears likely the percentage of genetically engineered alfalfa will continue rising, though: Roughly one-third of newly seeded acreage planted that year was of a biotech variety resistant to glyphosate herbicides, USDA said.

Farmers have been slower to adopt genetically engineered alfalfa partly because it's a perennial crop that stays in the ground for roughly five years, said Dan Putnam, an alfalfa extension specialist at the University of California-Davis.

Cultivars can be shifted more quickly with annual crops, he said. "You can change your mind next year and do something completely different than this year."

Commercialization of genetically modified alfalfa experienced a substantial setback after initially being deregulated by USDA in 2005.

Two years later, a federal judge blocked new plantings of a "Roundup Ready" glyphosate-resistant variety developed by Forage Genetics International and Monsanto.

The USDA took several years to complete court-ordered environmental analysis of the crop, which was again deregulated in 2011.

Genetically engineered sugar beets also encountered legal problems during commercialization, but adoption has nonetheless shot up to about 99 percent of planted acreage, according to USDA.

Alfalfa has particularities that have hindered greater adoption of genetically modified varieties, Putnam said.

In the Midwest and Northeast, farmers commonly plant a mixture of alfalfa, grass and clover for hay and forage, since each crop performs differently in fields with varying drainage conditions, he said.

"Using Roundup Ready doesn't make any sense in that situation," since glyphosate would kill the grass and clover, Putnam said.

specifically to that crop and biotech cultivars comprise up to 60 percent of newly planted acreage in some areas, Putnam said.

However, fear of export market repercussions has quelled enthusiasm for genetically engineered alfalfa among some farmers, he said.

In California's Imperial Valley, Monsanto and Forage Genetics have disallowed planting of biotech varieties in contracts with growers at the urging of local farm groups.

Alfalfa is often grown for seed in the Imperial Valley, particularly non-dormant varieties that are exported to countries with hot climates, such as Saudi Arabia, Mexico and South Africa, said Putnam.

Exporters fear that gene flow between conventional and biotech alfalfa will lead to rejection of shipments in foreign markets, he said.

"The export industry is very sensitive to the presence of genetically engineered crops," Putnam said.

Forage Genetics International, which bought the rights to the crop from Monsanto, did not respond to requests for comment from Capital Press.

The Center for Food Safety, a nonprofit group that challenged the commercialization of genetically engineered alfalfa in court, isn't surprised the crop hasn't been adopted more widely, said Bill Freese, its science policy analyst.

Alfalfa grows so thickly that it suppresses weeds, so herbicides were seldom used on the crop before the biotech varieties were introduced, Freese said.

Despite the comparatively low adoption rate, Freese said his group's concerns about genetically engineered alfalfa were not overblown.

Even though it's not as pervasive as other biotech crops, genetically modified alfalfa nonetheless poses a risk for conventional and organic farmers where it is grown, he said.

The Roundup Ready crop also perpetuates the problem of weeds becoming increasingly tolerant of glyphosate, Freese said. In other crops, this phenomenon has led biotech developers to create varieties resistant to 2,4-D and dicamba herbicides.

"I wouldn't be surprised to see that same pattern develop in alfalfa," he said.

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Mar. 29, 2016

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GM alfalfa may already be in Alberta

Accidental contamination of foundation seed heightens fears that forage and hay markets worth hundreds of millions are in peril

By **Alexis Kienlen** and **Glenn Cheater**

Published: February 29, 2016
Crops, News
■ **9 Comments**



Alberta is the largest producer of alfalfa seed, but growers' overseas customers have a zero-GM tolerance policy. Photo: Andrea Toman

Genetically modified alfalfa has somehow made its way into Alberta — raising fears that western Canadian forage seed growers and hay exporters could be shut out of markets worth hundreds of millions of dollars.

Alberta Farmer recently learned that a batch of foundation seed contaminated with Roundup Ready alfalfa was sent to a forage seed grower in southern Alberta four years ago. And that almost certainly means the hugely controversial GM variety is present in the province, said the grower.

"I should have made a big scene, but I didn't want to and it's four years later," said the grower, who spoke on the condition of anonymity.



Although this is the only confirmed case, the contamination was only discovered by accident and more farms likely grew GM alfalfa and never realized it, he said.

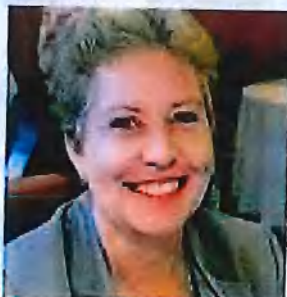
"It's in the system — if it's in one, it's in more than one," he said. "I should have been more vocal right at the start."

If so, it could be the start of the nightmare scenario long feared by many forage growers in Western Canada, which accounts for nearly all

of the country's 327,000 acres of forage seed. (Alberta has 40 per cent of those acres.) Canada exports \$280 million of forage seed annually and another \$100 million worth of alfalfa and timothy hay, meal, and pellets.

But most of the world's major buyers — including Europe, China, Japan, and the Middle East — have a zero-GM tolerance policy for both forage seed and hay, and test on a parts-per-million level.

Although the southern Alberta grower took extensive measures to wipe out the GM alfalfa on his farm, any other growers who received other batches of the contaminated foundation seed would not have known it was present. And if allowed to flower, its transgenic traits could be easily spread, said Heather Kerschbaumer, a forage seed grower from Fairview and president of Forage Seed Canada.



"The concern is that pollen would contaminate wild alfalfa, which would then contaminate the crops — it would slowly move and become a pest," said Kerschbaumer.

"The problem is because alfalfa is pollinated by bees and the pollen moves from the fields of hay where it is blooming. The concern is

"It's hard to find a fenceline or the edge of a pipeline or a ditch where there isn't some alfalfa growing. There is wild alfalfa everywhere."

Surprise discovery

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Roundup Ready alfalfa was developed a decade ago by an Idaho alfalfa-breeding company, Forage Genetics International, using Monsanto technology. It has been approved for Canada, but Forage Genetics International needs to develop a stewardship agreement — also known as a "coexistence" plan — before it can be marketed here.

The company has developed a coexistence plan for Eastern Canada — which only has about

10,000 forage seed acres — but last year announced it wanted to create a national coexistence plan, since forage alfalfa has been approved for sale by CFIA. That move has been strongly opposed by Forage Seed Canada, which argues coexistence is not possible because pollen cannot be confined to one field.

The case in southern Alberta is a stark example of how difficult it is to keep the GM genie in the bottle.

Foundation seed is created from breeder's seed and, in theory, should be a pure variety. The southern Alberta grower said it was only a fluke that he learned his batch of seed contained trace amounts of Roundup Ready alfalfa.

"We put in a field and we seeded too much," said the farmer. "We had a 10-inch drill and we upped the rate and it canopied in and choked all the alfalfa out. The stand was really thin. We had all-risk insurance and there wasn't enough plant density to insure so we took it out."

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That was when he got the surprise of a lifetime.

After spraying the field with Roundup, the grower said he was stunned to see that about 100 plants across the entire field had survived. He sprayed the survivors with a broadleaf herbicide, and summerfallowed the field for a year to ensure any subsequent survivors were



plowed down, before putting it back into alfalfa seed.

'Someone has screwed up'

Although he immediately contacted Forage Genetics International and company officials inspected the field, he said he neither asked nor was told if other batches of contaminated foundation seed were sold to other growers.

An official with Forage Genetics International said he wasn't familiar with details of the Alberta incident but said contamination can happen.

"If someone buys seed from the U.S., they can end up with Roundup alfalfa," said Mike Peterson, the company's lead for Global Traits. "If a seed company doesn't have good, correct quality controls, anything can happen. It's the same thing where you could have a conventional soybean in Ontario and it could be loaded up with traits. It does happen and someone has screwed up."

"There are controls in place. This is a breakdown in quality control."

The contaminated seed would have to have come in illegally from the U.S., he said.

"Companies can be lousy companies, and not have formal, rigid quality controls and test their seed," said Peterson. "That's one way it can happen. It's not approved for sale or use in Western Canada but it is in the U.S., so you could bring it across from Idaho or Montana or whatever."

"We take those things very seriously, so we don't think there is any GE alfalfa in Western Canada right now."

There is a "very easy" test for genetically modified alfalfa and if a commercial seed producer follows proper protocols, there should not be a problem, he added.

"It's really just a breakdown in process," said Peterson. "We all know what needs to be done to prevent it. It's not hard. It's just companies being lazy, is what it is."

(It is also possible to bring seed across the border without a licence — which allegedly happened in 2011 in Saskatchewan — but that was not the case in the Alberta incident.)

Seed versus hay

But Kerschbaumer said she fears the accidental release of Roundup Ready alfalfa is a forerunner of what's to come.

Forage Genetics International, which established a coexistence plan for Eastern Canada several years ago, is now doing the same in Western Canada, she said.

"We're hoping that that means that they're not going to start selling it in Canada this spring," said Kerschbaumer. "They keep pushing to get this (the coexistence plan) in place, and saying they want it in place before the beginning of March. It's a rush to try to get something this serious figured out."

But Peterson said the coexistence plan is only for production of GM hay — not alfalfa seed — and that's a critical difference.

"We're not going to have GE seed production," he said. "That's where the greatest risks occur, from pollen flow. The coexistence planning that we've been working on is if we have GE hay next to a conventional hayfield."

"I don't want to say never, but FGI does not have short-, medium-, or long-term plans to see GE alfalfa seed in Canada. That's not on the table right now. (Western Canada) is a valuable conventional seed production area, so we don't want to change that at this time."

Contamination is unlikely in hay production because a field of GM alfalfa would have to flower at the same time as a nearby conventional field, and then the conventional field would then have to be left unharvested for another 60 to 70 days before it went to seed, Peterson said.

Moreover, his company has not said it will start selling Roundup Ready alfalfa for hay production in Canada, he added.

"If we did sell GE alfalfa for hay production, the intent would be initially, that it would only be done from Ontario east because there's no seed production there," said Peterson. "But we have not even announced that we're selling traits in Canada yet."

'People are worried'

But the incident four years ago shows the challenge of preventing contamination entirely, said Kerschbaumer.

Most forage seed growers aren't opponents of genetic modification, but are fearful of the prospect of losing profitable overseas customers.

"Alberta is the biggest seed production area," she said. "This is risking all of our seed markets. That's why there are people worried about it."

A newly released USDA study on "transgenic feral alfalfa" will only fan those fears.

The study surveyed 4,580 fields in California, Idaho, and Washington state where conventional alfalfa seed was being grown. About 10 per cent of fields had feral or rogue varieties, and in 27 per cent of those cases, the rogue varieties were transgenic. The study didn't look for causes — both seed spillage and pollinators are possible causes — but its author said it "confirms that genetically engineered alfalfa has dispersed into the environment."

The USDA study also put some numbers on a problem that has been evident for years.

Roundup Ready alfalfa has been widely grown in the U.S., but not in California's Imperial Valley. Growers there produce more than \$100 million of hay annually, much of it for export, and successfully fought to make the valley a "GM-free" zone.

Nevertheless, several loads of hay from the Imperial Valley exported to China have tested positive and three major growers have reportedly been "blacklisted" by Chinese buyers.

Assessing the risks

Both the Imperial Valley situation and the incident in southern Alberta prove that contamination is inevitable, said Kerschbaumer.

She added that her exports have been tested and although none had transgenic alfalfa contamination, one container load of timothy hay was rejected by a customer four years ago after a single canola seed was found in a 25-gram sample.

Peterson concedes there are risks. The greatest risk is when Roundup Ready seed is being produced near a non-GM seed operation.

"There's hay to hay, hay to seed, and seed to seed," he said. "Seed to seed is the worst. If you have GE seed next to non-GE seed, that's something that we're not proposing at all.

"Even having GE hay next to conventional seed is a little bit risky without putting significant isolations between them."

But the contamination threat can be managed, said an official with the Canadian Seed Trade Association.

"There are some different opinions about whether we should have the technology or not," said Crosby Devitt, the organization's executive director. "From a perspective of the Canadian Seed Trade Association and those that represent all sides of the industry, the best way to go forward is to find a way to coexist. Everybody's ideas and concerns are valid. Let's get them all out on the table and work together on it."

His organization has not been told if or when GM alfalfa is coming to Western Canada.

"We will find out at the same time as everyone else," said Devitt. "We do know that the product is approved and there isn't any barrier to bringing the product into Canada or selling it."

Nevertheless, he added, "what we expect is that it is likely not going to be in Western Canada."

Developing a coexistence plan for Western Canada does not mean Roundup Ready hay will be grown on the Prairies, added Peterson.

"This will be the national coexistence plan and we're revising the Eastern (Canada) plan to make it a national plan," he said. "That's the process right now, and we're in the middle of doing that."

ABOUT THE AUTHOR

Alexis Kienlen and Glenn Cheater's recent articles

- GM alfalfa may already be in Alberta
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- Hang on, market turbulence ahead
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Genetically Modified Alfalfa Notes

- In-field test kits are available for testing for the modified gene.
- In order to elevate this to a prohibited noxious weed, each municipality would need provincial approval. If every municipality in the Peace region were to pass such a bylaw, approval by the minister would almost certainly be more likely. This would also be a strong show of solidarity and leadership from the Peace region that we are diligently trying to protect our forage growers industry.
- The idea is to ban the seed and plants from entering the Peace region. If it gets in or is found growing feral in the future, the municipalities would probably have to rescind the bylaw.
- Some municipalities have concerns about the cost both dollar wise and time wise to enforce a bylaw such as this. (i.e. having someone going around checking and testing fields and ditches)
- Some ideas around enforcement have been discussed, such as only testing plants on a complaint basis. Some would suggest that once the bylaw is passed and the plant is elevated to a prohibited noxious weed, and everyone in the municipality is aware of the bylaw, the chances of anyone bringing the seed or plant into the region would be very slim. Some others would suggest that the plant could easily be brought in inadvertently through contaminated seed or hay, thus causing spread through natural pollination.
- There have also been concerns raised around producers finding the GMO alfalfa in their fields and then trying to make the case that it came from the municipality's ditches, thus potentially

making the municipality liable for the producer's loss and cost of destroying the plants.

- There are differing views from our neighboring municipalities. Some Ag Service Boards are taking an educational approach by providing their ratepayers with information and letting them decide individually whether to grow it or not. Some are worried about enforcement and therefore are not proceeding with any action at this point. Some are trying to gather more information. Some are actively looking to pass a bylaw to elevate it to a prohibited noxious weed. Some are still in discussions and haven't made any formal resolution or bylaw.
- As of now, GMO alfalfa is not for sale in Alberta, as Forage Genetics International and Monsanto have not provided a coexistence plan for western Canada.

Clear Hills County

Request For Decision (RFD)

Meeting:	Agricultural Service Board
Meeting Date:	March 13, 2017
Originated By:	Greg Coon, Agricultural Fieldman
Title:	EVENTS
File:	63-10-02

DESCRIPTION:

The Board is presented with events for their consideration.

BACKGROUND:

- SARDA Farmers Appreciation Event on March 17, 2017 at the Chevallier Centre in Fahler, Alberta.
- Solar Power Workshop on March 14, 2017 at the ENTREC Centre in Grande Prairie, Alberta, March 15, 2017 at the Westmark Hall in Woking, Alberta or March 16, 2017 at the Log Cabin in Fahler, Alberta.
- Shelterbelts, Eco-buffers & Beneficial Insects Workshop on March 20, 2017 at the Bezanson Legion in Bezanson, Alberta or on March 21, 2017 at the High Prairie Ag. Society Hall in High Prairie, Alberta.
- Surface Rights Workshop on at the Worsley Community Centre on March 29, 2017.
- 21st Century Homesteading Permaculture in the Peace Country on April 5, 2017 at the Grande Prairie Regional College in Fairview, Alberta.

BUDGET/COSTS:

OPTIONS:

1. Approve the attendance of one or more members to one or more of the events listed.
2. Accept for information.

ATTACHMENTS:

- Event Attendance Cost Estimate
- Calendars
- SARDA Farmers Appreciation Event Poster
- Solar Power Workshop Poster
- Insects Workshop Poster
- Surface Rights Workshop Poster
- 21st Century Homesteading Permaculture in the Peace County Poster

RECOMMENDED ACTION:

That this Agricultural Service Board ...

Initials show support - Reviewed by: Manager:

ABJ

AgFieldman:

SC

Upcoming Events

Cost estimate per day per individual

Event	Location	Dates	# of days	Registration	Kms roundtrip from Worsley	Mileage	Room	Meals	Personal Allowance	Per Diem	Total Cost per person per day
Farmers Appreciation Event	Fahler	March 17, 2017	1	\$40	432	\$233.28				\$165.60	\$438.88
Solar Power Workshop	Grande Prairie	March 14, 2017	1	\$0	374	\$201.96				\$165.60	\$367.56
Solar Power Workshop	Woking	March 15, 2017	1	\$0	282	\$152.28				\$165.60	\$317.88
Solar Power Workshop	Fahler	March 16, 2017	1	\$0	432	\$233.28				\$165.60	\$398.88
Insects Workshop	Bezanson	March 20, 2017	1	\$0	394	\$212.76				\$165.60	\$378.36
Insects Workshop	High Prairie	March 21, 2017	1	\$0	568	\$306.72				\$165.60	\$472.32
Surface Rights Workshop	Worsley	March 29, 2017	1	\$0		\$0.00				\$165.60	\$165.60
Permaculture in the Peace Country	Fahler	April 5, 2017	1	\$80	170	\$91.80				\$165.60	\$337.40

March 2017

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
			1	2	3	4
5	6	7	8	9 Peace Country Classic Agri- Show All	10	11
12	13 ASB Meeting	14 Council Meeting Solar Power Workshop	15 Solar Power Workshop	16 Solar Power Workshop	17 SARDA Farmers Appreciation Event	18
19	20 Insects Workshop (Bezanson)	21 Insects Workshop (High Prairie)	22	23	24	25
26	27	28 Council Meeting	29 Surface Rights Workshop	30	31	

March 9-11th- Peace Country Classic Agri-Show at the Entrec Centre, Grande Prairie
 March 15th – Solar Power Workshop at the Entrec Centre in Grande Prairie, Alberta
 March 16th – Solar Power Workshop at the Westmark Hall in Woking, Alberta
 March 16th – Solar Power Workshop at the Log Cabin in Falher, Alberta
 March 17th – SARDA Farmers Appreciation Event at the Chevallier Cente in Falher, Alberta
 March 20th – Insects Workshop at the Bezanson Legion in Bezanson, Alberta
 March 21st – Insects Workshop at the High Prairie Ag. Society in High Prairie, Alberta
 March 29th- Surface Rights Workshop at the Communitv Centre in Worslev. Alberta.

Legend:

BH – Brian Harcourt
 BR – Baldur Ruecker
 MR – MacKay Ross
 GC – Garry Candy
 JW – Julie Watchorn
 CJ – Charlie Johnson
 All – All available members

April 2017

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
						1
2	3	4	5 21 st Century Homesteading Permaculture in the Peace Country	6	7	8 Trade Show All
9	10	11 Council Meeting	12	13	14	15
16	17	18	19	20	21	22
23	24	25 Council Meeting	26	27	28	29

April 5th – 21st Century Homesteading Permaculture in the Peace Country on April 5, 2017
at the Grande Prairie Regional College in Fairview, Alberta

April 8th – Clear Hills County Trade Show at the Dave Shaw Memorial Complex in Hines
Creek, Alberta

Legend:

BH – Brian Harcourt

BR – Balduz Ruecker

MR – MacKay Ross

GC – Garry Candy

JW – Julie Watchorn

CJ – Charlie Johnson

All – All available members

SARDA

AG RESEARCH
AGRICULTURAL TRADE SHOW



Farmer Appreciation Event

Dinner and Entertainment

\$40



Howie Miller

March 17th

Chevallier Centre, Falher

Cocktails	6:00 pm
Dinner	7:00 pm
Entertainment	9:00-11:00 pm

Tickets Available Now!

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Norma McKnight

Solar Power Workshop

Generating Electricity from the Sun

Opportunities for Alberta Farmers

A One-day Workshop on Grid-Tie Options

Featuring:

Rob Harlan

Executive Director of the Solar Energy Society of Alberta

It is becoming increasingly profitable for Alberta farmers to generate their own electricity and sell it to the grid, utilizing the renewable energy sources that are available right on their property!

This one-day workshop will cover solar electric system siting, installation, the permitting process, and economics.

Join us at a workshop near you!

Tuesday, March 14th 10:00am-3:00pm 9:30am registration <i>Lunch will be provided</i>	ENTREC Centre (LSM room) Evergreen Park, Grande Prairie	RSVP to Jill with County of GP 780-532-9727 or jhenry@countypg.ab.ca
Wednesday, March 15th 10:00am-3:00pm 9:30am registration <i>Lunch will be provided</i>	Westmark Hall 13km west of Woking	RSVP to Jen with PCBFA 780-835-6799 ext. 3 or jen@pcbfa.ca
Thursday, March 16th 9:00am-12:00pm 8:30am registration <i>Refreshments will be provided</i>	Log Cabin, Falher	RSVP to Shelleen with SARDA 780-837-2900 ext. 3 or extension@sarda.ca

FREE to attend!



Topics Covered at this workshop:

Doing More with your Field Margins

- ⇒ Benefits of shelterbelts & eco-buffers
- ⇒ Design guidelines
- ⇒ Species recommendations
- ⇒ Steps to establishment

Teaming with Bugs:

- ⇒ Importance of pollinating & pest suppressing insects
- ⇒ Ecology & habitat needs
- ⇒ How to attract beneficial insects to your property
- ⇒ Habitat design & establishment

If possible, please bring aerial maps of your property to the workshop



Shelterbelts, Eco-buffers & Beneficial Insects Workshop

Trees, Bees & More! with Luke Wonneck, AWES

Join us at a location near you!



Monday, March 20th 10:30am registration <i>Lunch will be served</i>	Bezanson Legion	RSVP to Jill with County of GP 780-532-9727 or jhenry@countygpp.ab.ca
Tuesday, March 21st 4:30pm registration <i>Supper will be served</i>	High Prairie Ag. Society	RSVP to Jen with PCBFA 780-835-6799 ext. 3 or jen@pcbfa.ca





SURFACE RIGHTS WORKSHOP

Wednesday, March 29th, 2017
6:30pm-8:30pm, 6:00pm registration
Worsley Community Centre

Are you a landowner with questions or concerns regarding your surface rights in relation to operators developing subsurface resources such as oil, gas, and coal or building and operating pipelines on your land? Join us as we host:

- **Michele Del Colle**
Energy, Utilities, & Policy Specialist, Farmers Advocate Office
- **Alberta Energy Regulator** representative



**A CHANCE TO GET
YOUR QUESTIONS
AND
CONCERNS
ANSWERED**

**SHARE YOUR
EXPERIENCE**

**ENGAGE WITH
OTHER
LANDOWNERS &
GUEST SPEAKERS**

For more information
or to register, please
contact Jen with
PCBFA at
780-835-6799 ext. 3 or
jen@pcbfa.ca

www.peacecountrybeef.ca

21st Century Homesteading

Permaculture in the Peace Country

Wednesday, April 5, 2017 • 8:30am - 4:30pm

GPRC Fairview



Cynthia Pohl

WORKSHOP 1

Get Buzzy

This session will help create an awareness of pollinators with focus on the important role they play in our lives and communities. You will learn about the

issues facing our pollinator populations and what each of us can do to create and maintain restorative pollinator habitat.

WORKSHOP 2

Growing Up: Green Roofs in Alberta

Green roofs (sometimes called 'living rooftops') can play an important role in sequestering carbon along with numerous other benefits. This session will introduce you to what makes a successful green roof in Alberta. It will provide you with a basic knowledge of the components of a green roof, green roofing benefits and a plant pallet that works in our climate.

WORKSHOP 1

Food Forests for Colder Climates

This session will help you find out how you can transform your urban yard or rural property into a forest garden including the best species for colder climates.



Ron Berezan

WORKSHOP 2

Backyard Biochar: Creating Sensational Soil and Saving the World

Biochar is a specialized form of charcoal used to create some of the most fertile soils ever known. Biochar also shows great promise for carbon sequestration, sustainable energy, and waste diversion. Learn how biochar can bring your soil to life and how you can use local waste materials to make it in your own back yard!



REGISTER NOW!

gprc.me/permaculture
or call 1.888.539.4772

Cost \$80/person
Includes Lunch

Clear Hills County

Request For Decision (RFD)

Meeting:	Agricultural Service Board
Meeting Date:	March 13, 2017
Originated By:	Audrey Bjorklund, Community Development Manager
Title:	Trade Show April 8, 2017
File:	63-10-02

DESCRIPTION:

The 23rd annual Agricultural Tradeshow will be held on Saturday, April 8, 2017. The board is requested to provide the shifts each member will work, as well as who will be attending the banquet, and speaking as MC for the banquet.

BACKGROUND:

Booth:

Ideas to include in the ASB booth?
Any highlights to advertise?

Schedule for booth - 10:00 a.m. – 5:00 p.m. 1 hour shifts with two Board members a shift.

	2 Board Members per shift
10:00 a.m. -11:00 a.m.	
11:00 a.m. – 12:00 p.m.	
12:00 p.m. – 1:00 p.m.	
1:00 p.m. – 2:00 p.m.	
2:00 p.m. – 3:00 p.m.	
3:00 p.m. – 4:00 p.m.	
4:00 p.m. – 5:00 p.m.	

Banquet:

AG60(06/13/16)

RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board requires all Agricultural Service Board members to attend the Clear Hills County Agricultural Trade Show and Farmers' Appreciation Banquet.
CARRIED.

MC: _____

RECOMMENDED MOTION:

RESOLUTION by that this Agricultural Service Board accept for information the Agricultural Service Board booth schedule and discussion around the 23rd Annual Clear Hills County Agricultural Trade Show being held on April 8, 2017 at the Dave Shaw Memorial Complex in Hines Creek, Alberta.

Initials show support - Reviewed by: Manager: <i>ABj</i> AgFieldman: <i>GC</i>
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Clear Hills County

Request For Decision (RFD)

Meeting:	Agricultural Service Board Meeting
Meeting Date:	March 13, 2017
Originated By:	Greg Coon, Agricultural Fieldman
Title:	AGRICULTURAL FIELDMAN REPORT
File No:	63-10-02

DESCRIPTION:

At this time the Agricultural Fieldman will have an opportunity to present his report.

BACKGROUND / PROPOSAL:

ATTACHMENTS:

- Greg- Agricultural Fieldman Report-March 13, 2017

RECOMMENDED ACTION:

RESOLUTION by _____ that the Agricultural Service Board accepts the March 13, 2017 Agricultural Fieldman report for information.

Initials show support - Reviewed by: Manager: *ABj* AgFieldman: *GC*

CLEAR HILLS COUNTY

AGRICULTURAL FIELDMAN REPORT

MARCH 13, 2017

GREG COON

PEST CONTROL

- Wolf numbers:

Wolves Claimed Since 2010 & Cost Associated with Claims			
Year	Comments	Wolves	Cost
2010	start of program - adults \$500; juvenile \$250	46	\$ 22,250.00
2011		92	\$ 44,500.00
2012	adults \$500; juvenile \$350	114	\$ 48,150.00
2013	all wolves \$250ea; Only private property & grazing leases are eligible as of March 2013 C195-13(03/26/13)	87	\$ 21,750.00
2014		58	\$ 14,500.00
2015	Incentive increased from \$250 to \$400 in October 2015; C492-15(10/13/15)	53	\$ 17,150.00
2016	Jan 2016 accept unskinned carcasses only; C52-16(01/26/16); Bear Canyon Pasture \$500/wolf bounty initiated.	107	\$ 42,800.00
2017		35	\$ 14,000.00
2018		0	\$ -
2019		0	\$ -
Total		592	\$ 225,100.00

- Coyotes claimed 2017:

Total #	Total \$
194	\$5,820.00

- Beaver tails claimed 2017:

Total #	Total \$
262	\$7860.00

Rental Equipment Usage January 1, 2017 - March 6, 2017

Equipment	Rental Rates	Total Users	Total Days	Total Revenue
Backpack Sprayer	\$ -			
Bale Scale	\$ 30.00			
Bale Tester	\$ 10.00			
Ball Hitch (2" & 2 5/16")	\$ -			
Livestock Ultrasound	\$ 25.00			
Chairs	\$0.5/chair			
Community Centre	\$ 50.00	2	2	\$ 100.00
Corral Panels	\$ 50.00			
Coyote Trap	\$ -			
Eco-Bran Applicator	\$ 50.00			
Grain Bag Roller	\$ -	2	2	\$ -
Grain Bagger	\$ 350.00			
Grain Bag Extractor	\$ 350.00	2	2	\$ 700.00
Grain Vac	\$ 200.00	4	4	\$ 1,400.00
Grass Seeders-Hand Held	\$ 5.00			
Grass Seeders-Quad Mount	\$ 5.00			
Grill	\$ 5.00	1	2	\$ 10.00
Hand Held Rope Wick	\$ 10.00			
Land Leveller	\$ 130.00			
Loading Chute	\$ 25.00	3	4	\$ 100.00
Manure Spreader	\$ 150.00			
Mulch Applicator	\$ 25.00			
Extra Hoses	\$ 1.00			
Post Pounder	\$ 125.00			
Pull/Push Roller Applicator	\$ -			
Quad Mount Rope Wick	\$ -			
Quad Mounted Sprayer	\$ -			
Quad Pull Type Sprayer	\$ -			
RFID Tag Reader	\$ -			
Rock Picker	\$ 300.00			
Rock Rake	\$ 300.00			
Roller Mill	\$ 20.00			
Rotowiper	\$ 75.00			
Scare Cannon #91060254	\$ -			
Signs	\$ -	1	1	\$ -
Skid Mount Sprayer	\$ -			
Steam Tables	\$ 5.00			
Tables	\$1.00/table			
Toilets	\$ 40.00			
Tree Spade	\$ 150.00			
Truck Mount Sprayer	\$ 100.00			
Wash Station	\$ 10.00			
Water Pumps	\$75.00(Summer) \$200 (Winter)	1	1	\$ 200.00
Zero Till Drills	\$300.00/20 feet			
Wire Roller	\$ 25.00			
Post Hole Auger	\$ 25.00			
Sickle Mower				
BBQ Trailer	50			
	48	16	18	\$ 2,510.00

OTHER TOPICS

- Trade Show preparation is well underway. Booth bookings are fairly brisk. Sponsorships have been coming in as well. We had no nominations for the Farm Family of the Year Award.
- I have ordered and received new hose reels for roadside spot sprayers. I received quotes for one skid mounted sprayer. I will be ordering shortly. This is included in the budget.
- Attended an education committee meeting in Nisku. We started arranging for speakers for the In Service Training Conference.
- Held a conference call with the sponsorship committee to discuss preparing sponsorship packages for IST and the ASB Conferences.

Clear Hills County

Request For Decision (RFD)

Meeting:	Agricultural Service Board Meeting
Meeting Date:	March 13, 2017
Originated By:	Greg Coon, Agricultural Fieldman
Title:	BOARD REPORTS
File No:	63-10-02

DESCRIPTION:

At this time the Board members will have an opportunity to present their reports.

BACKGROUND / PROPOSAL:

At this time the Board members will have an opportunity to report on meetings attended and other agricultural related topics.

ATTACHMENTS:

- Chair Harcourt written reports
- Member Watchorn written reports
- Member Ross written reports
- Member Candy

RECOMMENDED ACTION:

RESOLUTION by _____ that this Agricultural Service Board accepts the Board members' written or verbal reports of March 13, 2017 for information.

Initials show support - Reviewed by: Manager: <i>ABJ</i> AgFieldman: <i>GC</i>
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The Sainfoin Story...

By: Brian Harcourt

Speaker...Dr. Surya Acharya...Lethbridge R&D Center.

The issue...To develop a sainfoin variety that will complement alfalfa and eliminate Bloat.

Alfalfa, being the Queen of Bloat.

The old variety "Nova" would not regrow nor set seed.

So began the five part process to develop a new variety.

#1, The Cult development.

#2, Forage quality.

#3, Inoculant.

#4, Agronomy.

#5, Seed availability.

Dr. Acharya used plants from all over the world and interbred them to find the ones that grow best in alfalfa.

He found that AAC Mountainview for southern areas but more research is needed to develop strains for northern farmers.

The new varieties must produce as much "DM--Dry Matter" as alfalfa and must regrow and set seed.

Direct seeding into alfalfa stands is being worked on to develop the best method.

Grant Lestiwka. P.Ag..Forage/Livestock Specialist, with AB, AG, & Forestry.

Question...What determines "Profits" in grazing?

--High stocking rates= High Profits.

High stocking rates can only occur in ideal pastures.

In an old field drill in the best cocktail mix you can find

and then manage it well, introduce Sainfoin to reduce the possibility of Bloat.

Suggests, birdsfoot trefoil, cicer milk vetch, hairy vetch, some brassicas.

All seeds combined should be about 15000 seeds per pound.

A firm seedbed is a must, seeds should 1/2 inch in.

"Graze it for profit above ground and below.

Sean McGrath..Meadow Lake, Sask...A Grazing Mentor.

Choose your legumes wisely, forage is a long term crop.

Must withstand all the hazards and the good parts of our weather systems.

Alfalfa is one tough plant.

He is going to add some sweet clover, sainfoin and milk vetch.

With his type of pasture bloat is not a problem.

For those who have a problem with bloat he recommends
Alfasure or Buffer to your water systems.
He never adds Nitrogen fertilizer to any of his pastures.
Overgrazing is the worst practice that anyone could employ!

Rod Vergouwen...Grazing Mentor..East of Calgary.

He farms 2200 acres, 400 acres in crops, 200 hay land, 1500 in pasture, 150 cow/calf.
He grazes 3-5 days on each 50 acre paddock of alfalfa, brome and fescues.
He uses electric fencing, comment...cows know when it's not working!
Never takes a second cut off his hay lands, the plant need time to recover!
Winter he bale grazes.

Garth Hein..Electric Fence Specialist...www.gallagher.co...

The Power System..Volts=RPMs..Joules=HP.
Buy Joules.
For grounding use galvanized rods and clamps, 10 feet apart.
Do not use rebar or sucker rods, they rust.
Use 12,5 galvanized wire not copper.
Be at least 33 feet from a power line.
Do not connect to water system, metal building or a power source.
In winter you will need more power and more ground rods.
"Do not use Bared Wire"....!

Brian Parillat..Canfax marketing..403 275 5110.

Today all Markets are volatile!!!
Demand is driven by money not population.
Pounds of meat sold...#1 chicken, #2 pork, #3 beef.
Hog prices...way down...sales way up.
Beef price at the stores 2&1/2 times that of pork.
Cattle prices should move up during 2017.
Dec. 2014 was the high spot for cattle.
Cow numbers down to 30million in the US.
US produces 25million pounds meat monthly.
They import more than they export.
Our imports are down 9% y/y.

Soil Health and Carbon Day

By: Brain Harcourt

Put on by PCBFA....Speaker..Dr. Richard Teague.

Regenerative farming, 90% of soil function is accomplished by microbes.

Microbes depend on plants.

#1 factor is water in the soil which enhances the energy flow and the mineral cycle.

Paddock grazing rather than continuous grazing.

Try to adapt grazing to the weather conditions.

Short grazing days gives time for adequate plant recovery time.

Decrease bare ground as much as possible, "dark soil" = Carbon.

To accomplish this you will need to add more varieties of plant life to your pastures.

Microbes produce "exudates" to enhance carbon in the soil and increase water and nutrient retention.

Earthworms are great for the soil, their feces help to build soil.

Dung beetles compliment the earthworms.

200 cows will produce 25 tons of dung per week.

A cover crop is essential to improvement of soils.

Gabe Brown has up to 25 species of plants in his fields.

No till, high crop density, diversity, cover crops and livestock = good returns.

Talk to your neighbors, see what works.

Dr. Yamily Zavala...Crop and Soil Health Specialist.

Some problems...Soil compaction..Water runoff..Erosion..Poor growth..Less yields..More inputs.

Healthy soil has good tilth, and a great amount of organic matter, water storage is a given.

The continuous capacity of soil to function, Biological, Physical, Chemical, equals interdependent interaction.

Carbon and Nitrogen are useable by plants and are mobile in the soil.

Nitrogen is stored in soil organisms

Carbon is the source of energy.

Fungi is the mycorrhiza in the roots.

Carbon sequestration must increase organic matter.

More root systems more carbon sequestration.

The root of the problem is the root of the solution.

Food (plant diversity) is what biology needs, water, air and a place to live.

Living with Wildlife workshop...Grimshaw, AB.

Speaker...Courtney Hughes..

She spoke about how to identify bears and their range.

Attractants around your home, like garbage, BBQs, dead animals and spilled grain.

The use of electric fencing to protect whatever it is you don't want them to get in to.

They will pretty much destroy everything including the Bee Yards.

If your going into bear country carry bear spray and know how to use it!

Cougars can survive anywhere.

They use "stalk and ambush" to hunt.

You can hunt without a license on your own property.

Carry a bright flashlight, the Track lite would be a good one.

Luke Vander Vernen...Wildlife Biologist..

Our Elk always seem to be problem in AB.

Very strong population.

There are now three elk hunting seasons in AB.

Last year there were 1400 licenses available, not all were sold.

Cold and deep snow equals more elk problems.

Easy winter less problems.

For farmers to protect their bales, F&W will supply the fencing, you supply the posts and erect the fence.

Comments ...Why not just give the tags to the farmers?

Elk are nocturnal.

Comment...To F&W They are your animals so you come and fence them off my land!!

Living With Wildlife

By: Brian Harcourt

Speaker..Hugh Bjorge..ALUS

ALUS..a non profit organization dealing with migratory birds and marginal lands.

Funded mostly by the Weston Group (Family).

Farmer led and delivered, market driven, voluntary and science based.

50% Farmers and 50% oil and gas COs with with an ideal of increase land carrying capacity.

They are accountable and audited.

Weston wants to know where the \$ is going.

Money goes to proven model projects.

Five year agreements with the farmers.

11 MDs and Countys are now in ALUS.

Robert Starne...AB..Conservation Assc.

"The AB Wildside"...

He spoke about the sharp tailed grouse.

In spring the birds have their (LEKS) sites.

That's a hilltop area where they do their mating dances.

After the chicks are hatched they eat seeds and insects and they need good cover.

Wetlands make a great home for them.

But still the population is dropping off.

Mitch Warne...Woodlot .org.

Mitch gave an interesting talk on the local bird and bat population.

He explained how to build the correct bird house for those you may want to keep around.

There are 9 species of bats in AB.

He brought along two bat houses both flat one twice the size of the other.

He suggested not to feed sparrows and starlings.

Feb 24 2017..PCBFA..AGM...DMI..FV.

First Speaker, Dr. Akim Omkanye.

He spoke on cover crops with many graphs and charts

seeding rates and seeding methods, power performers like Cow peas and Black eyed peas.

Annual clovers, Ethiopian clovers and sugar beets.

Make a list of available cover crops and identify the growing period in the Peace.

Seed extremely competitive species.

Seeds per acre...1million to 1,250,000, 25 seeds per square foot.

Number of species in the mix and seeds per sq. foot.

Most Companies have packages of pre-mix.

Seed depth 1/4 inch to 1-1/2 into a firm seed bed.

Hairy vetch is a high Nitrogen fixer.

Sunflowers are very good for silage.

Brasicas may cause Nirate problems.

Hairy vetch is a very good mix with Triticale and oats.

In the PCBFA office in the GPRC college in FV they have some quantities of their 2016 Report.

It would be well worth your while to stop in their office and ask for one of those reports.

You won't regret the time spent.

Agricultural Service Board Conference

By: Julie Watchorn

On Tuesday January 24 2017 we traveled to Edmonton, Ab to attend the 2017 Agricultural Services Board Conference ! The theme this year was ' Under the Alberta Sky: People, Partnerships, Progress '

The first night it started with us registering and attending the welcome reception where the keynote speaker was Bill Wilson, CAO, The Rural Channel. We all know him best as the host of The Prairie Farm Report !

www.agcomproductions.com

www.theruralchannel.com

On Wednesday, we started with a welcome by the Conference Chairman, Bill Lee The Presidents of the Association of Municipal Districts & Counties and the Association of Alberta Agricultural Fieldman also spoke.

We then listened to Adam Kreek who was an Olympic gold medalist in Beijing in 2008 for rowing . He then, with 3 other men, attempted to cross the Atlantic Ocean from Africa to America in 2013 in a row boat ! His story is on NBC Dateline Documentary, Capsized .

A very humorous look at Agriculture and the way growing up on a farm really you have to listen to this guy! Damion Mason grew up on a Indiana dairy farm, last of nine kids so he knew he had to get a job because he wasn't going to inherit the farm. Absolutely hilarious look about farming and growing up as a farm kid. Agriculture- because starvation sucks!

DamionMason.com

Krista Zuzak from the Alberta plant lab

They had 325 samples sent in to them in 2016 to identify and diagnose diseases. The include samples of Wheat, Barley, Canola, Potatoes and Corn. Pulses- Peas, dry Bean, and Lentils. Trees- Elm, Pine, Apple, and Maple. Vegetables- Tomatoes and Garlic She talked about the clubroot in the province, the first confirmed diagnoses was in 2013, 2154 confirmed cases in 2015 and 260 more in 2016 .

Kevin Kossowan has filmed food and agricultural stories all over the world. Is currently working on Season 3 of a series called 'From the Wild'. In 2017 Kevin will be launching a website called ' Food Workshop ' Fromthewild.com storychaser.ca

On Thursday, started out with a very interesting segment called "People, Partnership, Progress Panel. They had 4 people, starting with Wayne Schneider of Great West Farms Ltd. who is a grain farmer in the County of Leduc. He sells his grain to Geoff Stewart who is President and Owner of Big Rig Distillery , Edmonton's first craft distillery. Carlton Gruger buys the pulp from Big Rig Distillery and uses it to grow mushrooms. He then sells his mushrooms to Sylvia Cheverie who opened a French-Canadian restaurant in March 2016 called 'Chartier' in Beaumont, Ab

SourceLocalmovement
dinechartier-facebook
familyfungi.ca

Timothy Caulfield-

Popular Culture Vs. Science...A battle we must win !

How to live a healthy lifestyle

1. Don't smoke

- 2.Exercise
- 3.Eat real food
- 4.Weight management
- 5. Prevent accidents
- 6.Sleep
- 88%of people think GMOs are bad
- 37% dont

Twitter- @CaulfieldTim

John Knapp- Global Macro Trends and the Future of Agriculture in Alberta
retired Deputy Minister of Alberta Agriculture.

Believes these Government programs should stay:

- 1. 4-H
- 2. Rat control
- 3. Ag society programs
- 4. Call-In land radio programs
- 5. Agricultural Service Board programs

1-100 people grow up on a farm

we are having smaller families not as many people going out into mainstream society Shared with us his predictions that will happen agricultually by 2050

Michael Kerr- Author and Inspirational Speaker Look for humour in your daily life! it effects your family, work place, and personal life

Live each day as it is your last...sooner or later your going to be right !

Work is hard enough as it is without making it harder..Make it happy!

Be a 100% jerk-free workplace

Create a clear sense of purpose in your workplace Communication is everything ; Can you smoke while you pray? 90% of people say NO !

Can you pray while you smoke ? 90% of people say YES !

You can't be serious.. Your not getting out alive!!

www.MikeKerr.com

Kevin VanTighem, Author of 13 books , promotes nature conservation and ecological education talked about Wolves and Bears How we will always live among carnivores

- Keep food stuff away
- bear spray
- be alert !

Ag For Life - Luree Williamson

Teaching people / kids about Agriculture in the classroom from elementary to high school
agricultureforlife.ca @ AgForLife - Twitter

Doug Macaulay -Rural Development Division - Agriculture and Forestry ASB Grant Program
55.3 million acres in Alberta (farm land)

12,000 weeds managed

doug.macauley@gov.ab.ca-email

Dr.Keith Lehman- Chief Provincial Veterinarian

Bovine TB Update

Challenging in many ways;

not wonderful tests;makes it difficult to detect lays dormant; sometimes years helps to have good traceability training hunters around Suffield Base to detect TB in wildlife (Elk& Deer) submit heads to Fish&Wildlife

1.8 million dollars paid out to quarantined farms TB can lay dormant in the cow for several weeks to months cold/moist ground prolong the dormancy warm/dry shorten it

ALUS Meeting

By: Julie Watchorn

ALUS CANADA - (Alternative Land Use Services) Is a national program supporting Farmers and Ranchers who produce cleaner air, cleaner water, more biodiversity and other ecosystem in their Communities which is funded in part by the Westin Family

Its Vision - A healthy landscape that sustains wildlife and natural spaces for Canadians

Its Mission - Enables Canadian farmers to make an active contribution to re-build nature by funding

ALUS works with just marginal land , landowners control the agenda with 5 year agreements to - maintain projects

- leave it there
- have to vegetate land
- have to keep wetlands weed- free

ALUS helps create and restore wetlands , planting windbreaks, establish riparian buffers, manage drainage ditches, create pollinator habitat, and much more.

There is no criteria for the projects but must be approved by the ALUS committee.

To find out more ALUS.ca

Also on: Twitter, Instagram, Facebook, youTube

UFA Farm and Ranch Insights

By: MacKay Ross

Essential Nutrients with Elston Scolberg

The future is here, just unevenly distributed. The better way is out there, might have been found a week ago or 30-120 years ago. Learn, unlearn, relearn, constantly. Best thing to put on your crop, is your shadow. (Confucius had similar quote from 2500 years ago.)

Any fertility/agronomy questions, sunmountaininc@gmail.com

New leaves, not old, show sulphur deficiency. Nitrogen, phosphorus, magnesium, and potassium are the only 4 nutrients that will transfer from old to new leaves.

Agriculture producers faces a 70% increase in yield by 2050, globally farmers have the same concerns; pH, topography, drainage, compaction and erosion are the biggest.

Only 30-40% of a field typically needs remediation, concentrate on that part to bring it up to equal the rest of the field.

Admitted that the recipes we are currently using will not grow the 70% more food that the world will need.

Calcium is lacking (plant available) in most areas, to produce proper yields.

Caution when side banding it can significantly over toxicify the soil close to the seed/plant.

Broadcast, on seed, side band, mid row, foliar every spray pass. Nutrients over time and space, allows variability based on need or excess.

Don't let logistics, trump agronomics. Just because something is easy doesn't mean it's best or even needed. (Fungicide when it has been dry for months is easy but a waste, and potentially harmful)

Soil test is very limited (snap shot), tissue test shows what the plant needs today, Brix test for fine tuning at higher yields. Easily soil mobile nutrients Nitrogen, Sulphur, Boron.

Molybdenum, declines as pH declines, only mineral that does, \$3 an acre will cover any moly deficiency. Estimated 67,000 lbs of water to grow a bushel of canola, however the moisture in the seed is the only water exported from the field, most returns to the air. Critical tissue ratios; Nitrogen : Sulphur, then Nitrogen : Potassium, then Calcium : Boron. Proper Boron in soil will raise heat tolerance 2-3°C, boron is tied up if the SOM is dry, surface trash to shield from sun and retain moisture. Apply Phosphorus, Boron, after hail for repairing damaged plants and to provide energy.

Personal Note: Spend more, over space and time, for more yield (that's what everyone is chasing)

Animal Health Relative to Profitability; Dr. Simon DVM

Technology is changing animal agriculture. We are becoming managers, no longer labourers, in agriculture.

iFHMS data collection is common in feedlots. Herdtrax.com, cow calf data capture software.

Encouraged us to research the beef "code of practice for care and handling of beef cattle", released by the government. Most producers are already satisfying this code but need to be aware of it.

Pain control, for castration after 6 months of age starting Jan1,2018, currently after 9 months of age.

Antibiotics use will not decline but an increased regulatory environment has begun. This will require more veterinarians to prescribe drugs.

Greenhouse gas quantification Alberta gov policy.

Best ROI is still in growth promoting implants, implant at 1-2 months, when they go out to grass 25lbs extra at weaning. \$50 approximate ROI from \$1.15 implant and 12 seconds of time.

Regional and Global Direction of the Petroleum Industry; Don Smith VP of petroleum UFA

OPEC as a group (Saudi Arabia as the largest producer) in Nov 2014, ramped up production to increase their market share, which drove oil down lower than they wanted, met again and increased production to achieve the new "normal" \$50-\$75 a barrel .

Don warned us that new lubricant requirements will increase cost about 5%.

Secret of Mineral Nutrition; DJ Woodward from ADM

Take waste streams (everywhere all over the world) and turn them into animal feed, such as canola crushers and wheat as well.

People want to know about their food, and they trust no one but the producer.

Consumer is increasingly influencing the producers.

We are being pushed by regulations to return to vitamin and mineral to boost immune responses.

Beef is first world luxury, it's becoming a delicacy and focus on specialty markets is key.

Cattle can produce well on lower feed, when using byproducts to address minerals.

All the trends (natural, organic, etc.) is only 5% of the market, and only 1% of the world can afford it.

"Animal happiness", formally known as animal welfare.

Pro and pre-biotics are good microbes and their food.

Technology is being developed to intentionally send encapsulated food to the intestine, "perfect " bypass protein.

Omega 3 from algae is more economical than from fish.

Certain yeasts act as an immune stimulate and pathogen binder which is then excreted.

Social media power; ADM lost 14 million through Internet fraud, but what scares them is a pet dying from their feed and a viral video makes ADM stock crash to half price over night.

I caught the last couple minutes of Larry Weber's question period on market outlook.

Recommended Marketing/contracting 20% at a time and set market triggers for your desired \$/bushel.

Larry@webercommodities.com

AGI; Rene Deschamps

Grain conditioning and correct aeration system Venting on bins at all times. Equal venting, inspection hatch is ok but "mushroom" vent on the opposite side and filler lid, 1 square foot of vent per 1000 cfm aeration fan.

Height of bin and commodity has a great impact on hp required, 1hp/1000 bushels for cereals 2hp/1000 bushel in oil seeds.

Find equilibrium moisture content chart!

To dry with aeration you need; 75-100 cfm/bushel, 10'C ambient temperature, 64% relative humidity all these are required before grains will allow moving air to remove moisture.

Proper vent will eliminate wall crusting.

Start warming grain in the spring at 5-8'C variance, warm slowly over longer time.

Run all the time, running at night only for southern Alberta where they are cooling the grain not drying the grain.

Beef Cattle Day hosted by NPARA and PCBFA

By: MacKay Ross

Dr Surya Acharya researcher responsible for the breeding of Mountain View Sainfoin.

25% sainfoin (or more) in Alfalfa in feed and grazing eliminates bloating (nearly), and sainfoin binds with alfalfa protein and results in bypass protein.

Old varieties of sainfoin also stopped bloating; however it didn't grow (establishment was challenging), persist (lasted 1-2 years at minimum 25%), consequently they didn't provide much biomass even the first year.

Many forages are bred to only yield well in mono crop, testing in a poly crop is always higher.

Simple breeding, plant mid row with alfalfa, cut 3x a year for 3 years then use best sainfoin plants that performed to desired benchmarks. Continue till one identifiable cultivar stands out, then commercialize.

All alfalfa/sainfoin mixed grazing yielded better gains than mono crop of either. Grazing these mixes yielded higher ADG than cut and feedlot fed.

Cattle will tend to mix graze and not show preference to alfalfa other than for the first few minutes (alfalfa) then eat sainfoin as well.

Grant Lastiwka

What is the ideal pasture, what do you seed to start a good pasture, not start with old hay.

Legume/grass mixes out yield (54-96%) more than tame grass and even more than native grass. (I have been repeatedly told native was better than tame) This results in 194-383% higher gross margins per acre.

If you don't seed/establish a good hay/pasture stand you won't end up with a good stand; however more seed is not better. (The graziers claim fence posts and management are the key to good pasture)

Seed depth is crucial, have a firm seed bed, roll after planting (No till).

www.foragebeef.ca

"Manage for profit above ground and wealth below."

Producer Panel

Remember forage is long term, establishment costs will seem very high. Days grazing per acre 75-90 so 1 cow per acre for 75-90 days of grazing. 70 cows on 90 acres from 15-May to 15-September grazed over as many as 3 times but first grazed won't be grazed first next year.

Akim spoke on PCBFA experience so far with sainfoin. Accidentally planted in row alfalfa and sainfoin, still grew, and persisted well.

Gallagher Rep spoke on electric fencing tips.

Buy joules not volts, joules are like HP and volts like RPM, buy a big enough tractor.

3000V minimum to stop cattle, check fence all the way to the end.

Electro Magnetic field around ground rods is 10' so if they are not 10' apart, you have one rod not 2.

Use proper parts, galvanized ground rods, galvanized clamps, etc.

Check ground 2x a year in the spring and fall, about 300 feet from the fencer, lean rebar against the hot fence till we have a 1000 volt reading past the rebar, then check ground, we want less than 200V reading from ground rod to dirt. If the reading is higher, install more ground rod(s).

Don't electrify barb wire because of rust and conduction to posts. (maybe applies to old wire and posts without insulators, we have a few, they work fine.)

Brian Perillat with CanFax

Beef is 2-2.5x more money per cwt than other meats, cheap grain benefits pork and poultry far more than beef.

Look to sell at 11 weeks (20 of March) into the year for best price, then at 32 weeks prices are higher.

Weak Canadian dollar has less impact than we think, it statistically results in cattle coming north not south, due to cheap feed and cost to packers.

Peace Agronomy Update

By: MacKay Ross

Jennifer Mitchell-Fetch talked on oat variety breeding. First pick the parents to breed for a specific purpose.

Intentionally disease the seed and cultivars, both in the nursery and field to eliminate weak strains.

Seeds go to New Zealand for 2 growing seasons and are again "diseased " and lodge tested.

Initial cross breeding of "parents" result in about 6000 lines, down to about 46 by pre-registration and down to a few to evaluation. Only a few make it to potential market.

Recommends farmers find out which varieties buyers and end user want. Then grow the best for our area.

Bill Chapman spoke on oat marketing opportunities.

He recommended we assess our up growing days to see if they are adequate to grow beta glucan which can then be used as a potential marketing tool and benefit.

As an area we need to take a look at commercially growing potatoes.

Ochre toxin in oats is a risk. Ensure stored grain is dry as soon as economically possible. This is less important with livestock feed but still needs to be addressed.

Ensure your buyer is Canadian grain commission bonded.

Buyers want (but don't tend to tell farmers) 20 L sample size; lidded, sampled from throughout the load/bin, and stirred for uniformity.

Grain commission does sampling for free from the combine.

Remember that 6-8% higher yields than normal are required before it's statistically important, don't buy the hype.

Bio Ag, Jon Treloar

Bio Ag is Novazymes (German company) that has joined with Monsanto (for its distribution network).

Sell inoculants, interesting that they recommend soybeans require 2x or more.

Trent Whiting spoke on Wheat reclassification.

The specific variety of wheat is going to become more important when you sell.

Check www.grainscanada.gc.ca

Neil Blue grain gave us a pulse and oilseed market update.

Record high S&B 500 but volatile due to tweets from President Trump.

Currently wheat stocks are high, recommended limited seeding for 2-3 years.

Forage seed compares to other per acre crops, consider these to offset the decreased wheat acres.

Soil Health Spirit River

Regenerating Soil Health and Farm Livelihoods, with Dr. Richard Teague

By: MacKay Ross

Regenerate soils, not sustain degraded soils. From what soil scientist can tell, 90% of soil function is microbial. Feed the microbes.

Water in the soil, not rainfall, is the limiting factor. Each 1% increase in soil organic matter (SOM) improves water carrying capacity by 16,500 gallons per acre.

Ensure all Flows; Energy, water, minerals, and a community dynamic diverse ecosystem.

Full farm research not small areas; plots serve a limited purpose, change management or practices on the whole farm and record results.

The amount of time animals are on land is the critical factor (days, weeks, months) not the number of animals in the herd (million lbs/acre for 2 hours vs 1000 lbs/acre for a summer).

AMP (adaptive multiple paddock) grazing is the practice of as big a herd as possible, moved to a new paddock as often as possible. It is important to be flexible; in paddock size (reasonably easy) as well as in total stock numbers (pretty hard, we get attached to our livestock). This grazing practice is capable of sequestering 3ton/ha of carbon/year which also promotes soil health and forage growth.

The goal is always to decrease bare ground(trampling helps initially), improve soil structure (limiting time on paddock decreases compaction), soil fertility (diverse plants=diverse soil microbiology), water holding(SOM see above note), livestock production(more forage=more livestock).

AMP has produced a 10% increase in soil carbon in 10 years, which increased rain retention to 8-16"/hour from 1% soil carbon and 1"/hour rain retention.

Carbon sequestration varies from 150%-430% increase at various depths (down to 2m)

80-90% of soil microbiology is beneficial, having proper fungi-bacteria ratio is important, Earthworms are a significant sign of soil health. The more per square foot each year the better!

The dung beetle's value is estimated at 2 billion dollars a year.

What about exclusion (animals fenced out, return to "nature")? AMP provides the same water cycle improvements as exclusion, but is significantly better at sequestering carbon, renewing the nitrogen cycle, and of course provides food through livestock production.

Cover crops grown on crop land, and managed with AMP, provides even better results, available minerals increase 250-87%. Grazing animals with AMP on 17% of cropped acres will maintain fertility, grazing on 20-25% of cropped land will achieve soil fertility in depleted conditions.

Interestingly, from the data, even light continuous grazing is significantly better than high continuous grazing.

Soil Health, with Yamily Zavala

Healthy soil has, tilth, deep roots, water storage, diversity, balanced minerals, no toxic chemicals.

Soil has physical, chemical, biological processes, all of which must be functioning, Biology makes the other two possible.

An intact Water cycle percolates, it does not run off (extreme rain events notwithstanding).

Tilth results in; aeration, water storage, makes soil resistant to erosion.

Compaction; stability (especially in sand) less pores, less air/water, less microbial (side effect of reduced fertilizer efficiency).

Soil aggregates smaller than 2mm are wind erodible, 2-6 mm water erodible 6-19 increase in retention 19+ virtually no erosion.

OM (organic matter) incorporation is best done naturally by earthworms, tillage will incorporate OM but will kill earthworms.

Mycorrhizal fungi transport plant nutrients, inoculate whenever needed.

C:N (Carbon:Nitrogen) ratio is crucial to create mineralization in the soil, 38:1 or higher the nitrogen is tied up in the microbes, not going to the plant, (this would be challenging to achieve).

Diversity, diversity, diversity. (Soil scientists stress this every time; diverse livestock, diverse rotations, diverse plants, diverse micro-organisms, diverse bacteria, diverse fungi, diverse available minerals.)

Polysaccharide are macro aggregators, humic compounds are micro aggregators. Micro means more stable, macro are better at holding Carbon.

Roots build 69-80% of SOM, the rest is from above ground litter. Build plants by using biology, other methods kill biology.

What do you need cover crop to fix? "It depends." What is your desired outcome? Mentioned the benefits of incorporating grazing into cover crop.

Carbon Sales

Only new sequestration projects get payed. There are only three Agricultural carbon aggregators in Alberta. Pay about \$1.47/acre for carbon no-till.

Aggregators maybe contracting up carbon credits to have some to sell in carbon levy potential prices. Wind power is eligible for carbon credits. Since 2010 ALUS has put \$674,000 into Alberta farmers pockets.

Conservation offsets are being looked at in Alberta, company pays to take out trees, or pays landowner to keep or improve trees.

Alberta Beef Conference – February 15 – 17, 2017-

By: Garry Candy

Wednesday, February 15 consisted of :

- ❖ **Pre-conference workshops**
 - **Uncovering your personal brand**
 - **Introduction into holistic management**
 - **Animal welfare in Canadian feedlots**
- ❖ **Trade show booths – full list of participants appended at end of report**

Thursday, February 16:

- ❖ **Danny Hooper - Master of Ceremonies – an excellent speaker introducing speakers and topics**

Biography - Danny Hooper is enjoying a remarkable ride. Born in Edmonton, Canada and raised on a cattle ranch near the tiny hamlet of Tomahawk, Alberta, Danny knew at an early age that his passion was in the entertainment world. In the decades since, he has parlayed his unique personality and off-beat sense of humour into an award-winning career and thousands of on-stage performances as a recording artist, motivational speaker, comedic emcee, and celebrity benefit auctioneer.

Numerous speakers with sessions running simultaneously:

- ❖ **Morning and Afternoon: Terry O'Reilly – He spoke from a marketing view and how a change of perception can change the thoughts of the buyers on a large scale and influence public consumers – giving example of companies that had excellent success by changing their branding of products i.e. A & W sourcing and advertising use of steroid free beef in their burgers.**

Changing Minds: How to Turn Negative Perceptions Into Positive Ones

One of the most difficult tasks marketing can undertake is to change a perception. But it can be done. If the beef industry is facing perception obstacles, it must get ahead of the problem. Terry will talk about the process behind changing public behaviour and turning a negative perception into a positive one and will demonstrate the ways other advertisers have tackled this difficult problem with extraordinary results.

Tell Me a Story: The Power of Storytelling in Marketing

If you don't have a story, you don't have a business. All the top industries in the world are underpinned by compelling brand stories. Stories move people, stories attract business and stories can be used to turn negative perceptions into positive ones. Join Terry O'Reilly as he talks about the best brand stories in the world, how they are created, how the beef industry can harvest its own stories and how to use the power of honest storytelling to guide your brand into a positive place in your customer's minds.

- ❖ **2017 – 2018 – Dr. Art Douglas –**

- **Biography** - Mr. Douglas received his B.A. in Biology and Geology from the University of California at Riverside. He received his M.S. and Ph.D. for the University of Arizona with a specialty in long-term climate studies. He taught at University of Nebraska Lincoln, Scripps Institution of Oceanography and Creighton University. At Creighton he served as Chair of the Atmospheric Sciences department from 1983-2009. Mr. Douglas has been the long-range weather forecaster for Cattle Fax since 1977 and for the Gavilon Trade Group since the late 1990s. He continues to consult for the Mexican Meteorological Society and we are pleased to welcome him back to deliver 2017's Weather Forecast.

❖ **Dina Ignjatovic**

- **Global Economic Forecast** Macro review of the North American economy including an interest rate forecast, CAD / USD currency forecast and a briefing on world commodities.
- **Biography** Based in Toronto, joined the Economics department at TD Bank Financial Group in September 2007. Her chief responsibilities include analyzing and forecasting the auto sector, commodities and other industries. Dina also contributes to a wide variety of TD publications, and is frequently quoted by the media on various economic issues. Dina holds an M.A. degree in Business Economics from Wilfrid Laurier University and a B.Comm. degree from the University of Guelph, where she majored in Management Economics in Industry and Finance.

❖ **Dave Hemstead**

- **Taste of Alberta Comedian** - Called a "Canadian Master" by Just For Laughs, **Dave Hemstad** has skyrocketed to the top of the national comedy scene, appearing regularly across the country and on a hit show on CBC. Brashly confident on stage with clean, refreshing, motivational humour, Hemstad muses on daily life, modern world frustrations and social tensions we all experience, but keep to ourselves.

❖ **Duane Lenz**

- **Market Analyst** at Cattle-Fax since 1989, working with Texas, Colorado, Nebraska and Western U.S. feedlots and cow/calf producers. His current responsibilities are with Texas, California and Arizona feedyards, as well as serving as General Manager for Cattle-Fax. Duane is also heavily involved with meat analysis.

❖ **Richard Brown**

- **Global Beef Market Outlook** - Review of the global beef demand outlook in the context of Asian demand growth and the expanding competition from South American and Indian supply and the dynamics which are driving this.

❖ **Brian Perillat**

- **Key Market Factors for the Canadian Beef Industry** Session focused on the beef industry's supply, demand, and future price trends domestically and internationally as well as macro trends affecting the industry and how they will impact beef supply and cattle prices in the year ahead.

- ❖ **Doug Lacombe** – Referred to suppliers again changing brands based on consumer tastes – made mention of the number of products such as Cherrios that now offer a multitude of choice to consumers as well as to suppliers again changing brands based on consumer tastes – made mention of the number of products such as Cherrios that now offer a multitude of choice to consumers as well as yogurt and commented that Greece apparently needed to go broke in order that their yogurt made it to our grocery shelves.

- **Consumer Trends Survey** - Consumer tastes are changing, as is health consciousness. This leads to a lot of misinformation, dietary fads, and demand for new and different products and processes. Beef now competes with other protein choices like never before. We all hear a lot of noise about beef, from health scares to environmental concerns, hormones to antibiotics. There's a loud minority that has a lot of opinions. But what about the silent majority? And what does the data say? Is this minority really having an impact? Are their views becoming mainstream? Doug presented the latest findings from the research data and put these trends in context. One thing is for sure, marketing beef in the future will not be the same as in the past.
- ❖ **The Real Beef – Panel – James Bradbury spoke about the Canadian consumer advantage – 4 additional speakers onstage spoke as a panel**
 - **Mike Lovsin – Freson Brothers**
 - **Mike Barette – Natural and organic meat farms**
 - **David Carriere – President, Centennial Food Service**
 - **Tom Barlow – President and CEO of the Canadian Federation of Independent Grocers**

They answered numerous questions from the audience about where the beef industry is going – mostly positive as far as demand goes – a great deal of discussion about organic meat as that a great many consumers are leaning that way
- ❖ **Jennifer Winter – Emissions pricing in North America**
- ❖ **Richard Brown - Global Beef Market Outlook**
 - **Spoke about markets – 30 % of all beef exports and 25% of pork exports go to China**

Sponsors and Trade Show Participants

Landmark Feeds Inc.
 Alberta Prion Research Institute
 John Deere
 Kubota Canada Ltd.
 Finning Canada
 Merck Animal Health
 Landmark Feeds Inc.
 FBC – Canada's Farm & Small Business Tax Specialist™
 Alberta Beef Quality Starts Here
 Top Spray
 Alberta Agriculture & Forestry
 Real Estate Centre
 Alberta Beef Magazine
 Alberta Prion Research Institute
 Heavy Equipment Area
 John Deere
 Kubota Canada Ltd.
 Finning Canada
 Alberta Beef Magazine
 Cambridge Global Payments
 Canadian Cattlemen -The beef magazine
 Cargill Animal Nutrition

Elanco Animal Health Canada
 The Western Producer
 AltaGas Ltd
 John Deere
 Merck Animal Health
 RBC Royal Bank
 UFA
 Zoetis
 ATB Financial
 Landmark Feeds Inc.
 BMO
 MNP
 Accurate Scale Industries Ltd
 Alltech
 Olds College – Technology Access Centre for Livestock
 D&M Concrete Products
 CorNine Commodities
 Solvet
 Gem Silage Products
 AFSC
 Steve's Livestock Transport
 Lethbridge College
 ITS Global
 Highline Manufacturing Ltd.
 Double D Cattle Mats
 Canadian Cattleman's Magazine
 Glacier Media
 Ken Smith Corral Cleaners
 Merial Canada
 Boehringer Ingelheim
 AltaGas Ltd
 Elanco Animal Health
 Supreme International
 Zoetis
 Performance Seed
 New Direction Equipment
 Chinook Silage Covers
 DLMS
 Neogen
 SSG Fusion
 Canada's Agriculture Day: Join the Celebration
 FeverTags
 DeStress Nutrition Technologies
 Canadian Bio
 Merck Animal Health
 Beef Breeds Booth
Canadian Angus Association
Canadian Charolais Association
Canadian Herford Association
Canadian Limousin Association
Canadian Simmental Association

Remedy Animal Health Products Ltd.
Market Place Commodities
Merritt Trailers
Prime Portable Ready Mix Ltd.
Vetoquinol Canada
Y-Tex
RBC Dominion Securities
Nester Livestock Equipment
Union Forage
AgriClear
University of Calgary, Veterinary Medicine
Hi-Pro Feeds
Kane Veterinary Supplies

Garry Candy

Winter Watering Tour – January 13, 2017

By: Member Candy

Coffee at 9 am, boarded bus to first site – Van Herk from Eureka River.

Watering buildings are constructed and large tanks of water are placed with 2/3 of the tank inside the well insulated building that the owner built himself.

Lunch was held at the Hines Creek school with 2 speakers:

- Dan Benson with the Alberta government said that land owners do not own the water on their land, nor the land underneath the water. Permission must be obtained from the government before doing anything with the natural occurring water and waterways.
- Steve Kenyon from Busby, Alberta said his first choice for winter water is snow but with some precautions. Continuing flow systems are his second choice – illustrated how he used old rockpickers with solar panels to run pumps and heaters. The pumps were submersible and the return to the dugout insulated. He and his wife own no land or animals. They manage about 1200 – 1500 head on rented 3300 acres. There is virtually no risk to them – He and Amber have a company called Greener Pastures and contract to do 3 day workshops on cattle management.

A tour to Whitelaw to view nose pumps was scheduled for the afternoon.

Clear Hills County

Request For Decision (RFD)

Meeting:	Agricultural Service Board Meeting
Meeting Date:	March 13, 2017
Originated By:	Greg Coon, Agricultural Fieldman
Title:	INFORMATION & CORRESPONDENCE
File No:	63-10-02

DESCRIPTION:

The board is presented with correspondence for review.

BACKGROUND:

Attached are documents for the Board's information:

ATTACHMENTS:

- Environment Stewardship Branch – Article – (63-10-02)
- Mighty Peace Watershed Alliance – Newsletter – (63-10-02)

RECOMMENDED ACTION:

RESOLUTION by _____ that this Agricultural Service Board receives the information & correspondence of March 13, 2017 as presented.

Initials show support - Reviewed by: Manager: <i>ABJ</i> AgFieldman: <i>AC</i>
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ESB NEWS

Welcome to ESB News

This is the first edition of the Environmental Stewardship Branch (ESB) News and will be an additional resource from ESB approximately every second month. This newsletter will highlight information, projects and resources that are new or upcoming within ESB, highlight ESB staff and provide a list of upcoming events, conferences and webinars. We hope that this focused information sharing will be useful to you and your clients.

Carbon Levy Facts & Myths

Wondering what the real facts and myths are when it comes to the carbon levy and how farmers will be affected? [Mike Hittinger](#) has tackled these misconceptions and highlights what one really needs to be aware of. This fact sheet looks at these following items and other common questions being asked.

- Carbon levy rates are charged directly on the cost of heating and transportation fuels
- Albertans will not pay a carbon levy directly on their electricity bill
- The added carbon levy for diesel of 5-8¢/L represents about 1% of the freight bill
- Determining whether or not the added cost is appropriate for the product or service being provided

[Click here](#) to read the Alberta's Carbon Levy and Farmers – Facts and Myths fact sheet. For additional information be sure to look at [Climate Change and Agriculture](#) and [Carbon Levy - FAQ for Producers in Alberta](#).

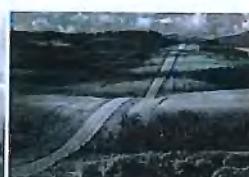
Challenges with Used Agricultural Plastics

Finding cost-effective, environmentally friendly ways to manage used agricultural plastics remains a serious challenge in Alberta. With the increased usage of agricultural plastics such as grain bags, twine, net wrap and silage bags, understanding available disposal options to producers is important piece for future extension practices. Surveys with Municipalities and Municipal Waste Authorities were completed in 2015 and fact sheets were created to summarize the key findings. For further information on the topic, please contact [Scott McKie](#).

- [Highlights from 2015 Market-Based Solutions for Used Agricultural Plastics: Survey of Municipalities](#)
- [Highlights from 2015 Market-Based Solutions for Used Agricultural Plastics: Survey of Municipal Waste Authorities](#)

Dealing with Crop Residue

Keep watch for the soon to be available fact sheet "Dealing with Crop Residue". Information in this fact sheet will help weigh options to make the best decisions on the farm in regards to the unharvested crops and excess residue remaining on the fields. For further information, please contact [Blaine Metzger](#).



Agricultural Apps Coming to Your Phone Soon!

Looking to do more with your phone on-farm? Check out the [Manure Calculator](#). Environmental Stewardship partnered with the University of Nebraska to include Alberta nutrient book values and the ability to select Canadian measurement units for the soon to be released update. Currently the app calibrates manure spreading equipment and amount of manure being applied to the field, determines the amount of nutrients applied in the manure and estimates the value of using manure. Cost to download this app is less than \$2 and can be found on [iTunes](#) and [Google Play](#).

The Manure Management Record Keeping app (funded by *Growing Forward 2*) is in creation phase and the project group includes Alberta Milk, Alberta Pork, Alberta Beef Producers, Natural Resources Conservation Board, Intensive Livestock Working Group and Alberta Agriculture and Forestry. The focus of this app is to create a tool for better manure business management decisions. This app will provide a convenient decision making while automating the collection and retention record keeping information. Additionally, this app will be tested by farmers and custom applicators throughout the development to help assess function and relevancy to the industry.

For further information on either of these apps, please contact [Laura Thygesen](#).

Staff Profiles

- Shivani Tarksis is back from maternity leave and resuming her role as Confined Feeding Operations (CFO) Program Coordinator and can be reached at 780-427-3908. Shivani will be on a reduced work schedule for the first few months working Monday through Wednesdays.
- Kimberley Dacyk will now be working as the Energy Extension Coordinator. Kim's new role will include developing and delivering a communication plan for energy management on farms. She will also be helping with the On-Farm Energy grant administration and can be reached at 780-415-2358.
- Walter Dunnewold is new to the GF2 Energy Management team. Walter will be helping with the On-Farm Energy Management Program's performance reporting by quantifying the carbon savings that the program's grant projects have led to. Walter can be reached at 780-644-1196.



Coming Events Calendar

Looking to connect with staff and update your resources from Environmental Stewardship? Take a look at the list below and see if you are able to stop by one of our booth locations, listen to a webinar or attend a conference with ESB staff part of the conference presentations.

Alberta Agriculture and Forestry's website has a large list of events around the province and is one of the most visited areas of our website. Coming Events Calendar can be found [here](#). If you have an event you would like to advertise on Alberta Agriculture and Forestry's website, please send all the event information to duke@gov.ab.ca.

Events:

The New and Improved Soil Information Viewer

- Webinar, Feb. 22

Getting the Most from Nutrient Management

- Lethbridge, Feb. 23, 2017

Climate Like Never Before

- Webinar, March 1

Ag Expo & North American Seed Fair

- Lethbridge, March 1 - 3, 2017

Western Canadian Dairy Seminar

- Red Deer, March 7 - 10, 2017

AAMDC Spring Trade Show

- Edmonton, March 20, 2017





February 2017

Diverse, Responsible & Connected

Issue #11

Flow of the Peace

HOW DOES INVASIVE SPECIES AFFECT RECREATION?

**March 7, 2017
Grande Prairie, AB**

12:30PM - 4PM

Cost: \$10/person
To Register please
contact:
mpwa.admin@telus.net
OR
call (780)-324-3355
Registration Deadline:
March 3, 2017

Who should attend:
Resort Owners, tourism
promoters, boat owners,
fishers, watershed
stewardship groups, park
staff, campgrounds, and
anyone who is interested

Learn about common invasive species that are threatening
watershed health and sustainability.
Find out how to identify them and prevent their spread
**Guest Speakers from Alberta Environment Parks
and County of GP**

What Flows

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Tour Update	Page 4
PCBFA AGM	Page 4

Save the Date!

**May 26, 2017 Annual General
Meeting
Peace River, AB**

Come Visit us at the Following Tradeshows!

- Peace Country Classic, Grande Prairie: March 9-11
- Smoky River Agricultural Tradeshow, Falher:
March 16-18
- Clear Hills County Tradeshow, Hines Creek: April
8

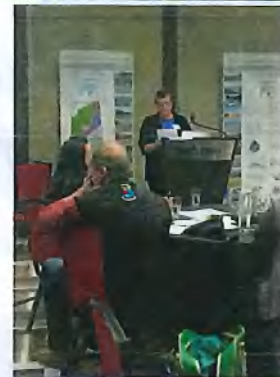


WPAC Summit—October 26-28, 2016

On October 26th to 28th the Bow River Basin Council hosted the 11 of the Watershed Planning and Advisory Councils (WPACs) in Calgary Alberta.

Throughout the three days the WPACs had a chance to discuss province-wide issues and successes, as well as what roles WPACs play in current regional provincial planning.

There were many presentations which gave each WPAC the opportunity to share what they are currently working on as well as projects they have completed. To see a summary of each WPAC in Alberta please visit our [website](#)!



Source Water Protection Planning Forum Summary



On the afternoon of December 1st the Mighty Peace Watershed Alliance hosted a Source Water Protection Forum in Grande Prairie. Throughout the day there were three different speakers that addressed different components of a Source Water Protection Plan.

The first speaker of the afternoon was Jennifer Guth and Debra Mooney for Public Health Standards and Regulations with the Province of Alberta. They spoke about the Proposed Recreational Water Management Protocol (RWMP) pilot study they created which is supposed to help build a recreational water safety plan for lakes throughout the province. They also

spoke about lead in drinking water, reclaimed water and responses to drinking water quality.

The second speaker was the Town of Grande Cache. Currently they are the only town in the Mighty Peace Watershed that has created a Source Water Protection Plan. The town sent three councillors; Mary Nelson, Johannes Zwart, and Yvonne Rempel who worked with the town and council through the whole process of the SWPP. They shared the steps and processes they needed to take create their Source Water Protection Plan and also the challenges they faced while creating it.

The final speaker of the afternoon was our Chairman Alden Armstrong who spoke briefly about Aboriginal's Perspective on Water.

In total there were 38 people who attended the workshop.

Check out our State of the Watershed Report!
For copies please email Megan Graham at
mpwa.admin@telus.net or check out our
website for electronic copies



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c/o Rhonda Clarke-Gauthier,
Executive Director
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Newsletter produced with support from AEP,
Alberta Government



**Diverse, Responsible &
Connected!**

- *Diverse group of people representing diverse interests.
- *Responsible for bringing those interests together.
- *Connected to all stakeholders across the watershed area.



Watershed Coordinator Adam Norris

The Integrated Watershed Management Plan is progressing well and I must first thank all those who have contributed to our working groups and those who have provided us input through our engagement sessions. Please check out our website for a listing of the working groups and some of our engagement events

[\(https://www.mightypeacewatershedalliance.org/projects/integrated-watershed-management-plan/\)](https://www.mightypeacewatershedalliance.org/projects/integrated-watershed-management-plan/).

To this point, that which we have been discussing with all and sundry is still quite high level but very important. First of all we are looking for agreement on where we are heading, that is to say what do we want our common water resources to look like today and into the future.

Generally, this follows the 3 goals of Alberta's *Water for Life* strategy, which are: 1) safe, secure drinking water, 2) healthy aquatic ecosystems and 3) reliable supplies for a sustainable economy. Safe, secure drinking water continues to rank as the highest priority as agreed upon by the Mighty Peace Watershed Alliance Board of Directors. There has been a consistency, not a total uniformity, but a consistency among the Board of Directors, the 4 working groups that were struck, and also the stakeholder engagement sessions about the high level goals for our watershed.

Developing an agreed upon set of agreed upon outcomes or goals for our watershed allows us to start figuring out how to get there. This becomes more challenging because now trade-offs are on the table and we have to consider what compromises need to be made to achieve our goals. Of course, we have started with the low hanging fruit and the first strategies we work upon are those which everyone agrees upon and there is very little in terms of trade-offs. Some of the strategies that fall into this category include better sharing of information, cross-pollination of Beneficial Management Practices and working to fill data gaps. May 2017 will see the release of our DRAFT Integrated Watershed Management Plan and the strategies and management recommendations provided in this document will include both the low-hanging fruit and more challenging recommendations. The more challenging recommendations involve potential trade-offs and we will only moving forward to engage upon those recommendations where the affected sectors have indicated that the trade-off is something that they would be willing to consider. Agreement here is critical before we make recommendations in our final Integrated Watershed Management Plan.

Engagement is something that we have been working on already and we will really focus on starting May with the release of our DRAFT Integrated Watershed Management Plan. This release is a DRAFT, so please expect it to change with feedback that we receive. Furthermore we expect it to evolve as ongoing work is plugged into the framework of the plan. For instance, when local source water protection plans are completed, the Integrated Watershed Management Plan will incorporate and use the recommendations found therein for that location. The management recommendations are often still at a high level and so when more concrete objectives or recommendations can be developed and agreed upon then these also will be incorporated into the Integrated Watershed Management Plan.

So please come talk to us, make your suggestions on how our water should be managed and help us develop and promote watershed management that benefits you.



Seven Generation Energy Tour

On September 28th, 2016 the Mighty Peace Watershed Alliance was given an opportunity to go for a tour of some of the Seven Generations Energy Ltd. Facilities outside of Grande Prairie.

The tour was organized by the Oil & Gas Representative Natalia Rossiter – Thornton who works at Seven Generation Energy. Three board members from the Mighty Peace were able to attend the tour as well as one staff member.

Throughout the day MPWA was taken to tour a gas plant, a rig on one of Seven Generations pad sites, a fracking operation as well as a helicopter tour.



PCBFA—Annual General Meeting

Save the Date! PCBFA Annual General Meeting (AGM) is taking place on the evening of Friday, February 24th at the Dunvegan Motor Inn in Fairview. You definitely don't want to miss this year's AGM!

We will be having Nuffield Scholar, Léona Dargis as our keynote speaker; Lawrence Rowley from Leader Tours presenting and available to answer all the questions you may have about our upcoming New Zealand Ag Tour; our Research Coordinator, Akim, presenting on a PCBFA project research update; and our Agri-Environmental Coordinator, Jen, debuting the Whole Farm Water Planning video series! On top of all of that, there will be door prizes, a bull sale corner, and a free GP Brewing Co tasting! There will be a delicious supper served as well, with opportunity to engage and network with other producers throughout the entire evening!

For addition information please call Jen Allen at (780)835-6799



2017

Annual General Meeting

FRIDAY, FEBRUARY 24TH

DUNVEGAN MOTOR INN, FAIRVIEW, AB

4:30PM REGISTRATION

5:00PM BUSINESS MEETING

6:00PM SUPPER

KEYNOTE SPEAKER: LÉONA DARGIS

\$55/Person, or \$75/Farm Unit

Includes 2017 PCBFA Membership

Please RSVP to Jen at 780-835-6799 ext. 3 or jen@pcbfa.ca

A block of rooms has been held at Dunvegan Motor Inn & Suites
Please call 780-835-5100 to book a room

Board Members

Government	Industry	Non-Governmental Organizations	Aboriginal Communities
Federal-Transboundary Relations -Abdi Siad-Omar (Alternate - Courtney Hughes)	Agriculture -Shelleen Gerbig (Alternate- Eric Jorgensen)	Conservation/Environment -Bob Cameron	Métis Nation of Alberta -Sylvia Johnson (Alternate -Barry Dibb)
Provincial -Dan Benson	Forestry -Ian Daisley	Watershed Stewardship -Cathy Newhook (Alternate - Tony Saunders)	Metis Settlement General Council -Alden Armstrong (Alternate -Stan Delorme)
Large Urban -Chris Thiessen (Alternate - Michelle Gairdner)	Oil & Gas -Natalia Rossiter- Thornton (Alternate - Jennifer Ezekiel)	Research/Education -Jean-Marie Sobze (Alternate - Bin Xu)	Upper Watershed First Nation -Vacant
Small Urban -Elaine Manzer (Alternate - Vern Lymburner)	Utilities -Ashley Rowney	Public Member-at- Large (2) -Richard Keillor -David Walty	Middle Watershed First Nation -Vacant
Rural Municipality -Elaine Garrow (Alternate - Ray Skrepnek)	Mining -Vacant	Tourism/Fisheries/ Recreation -Dave Hay (Alternate - Roxie Rutt)	Lower Watershed First Nation -Jim Webb (Alternate - Lindee Dumas)