

MUNICIPAL DISTRICT OF GREENVIEW NO. 16

"A Great Place to Live, Work and Play"

REGULAR AGRICULTURAL SERVICE BOARD MEETING AGENDA

Wednesday, June 28, 2017			Council Chambers Administration Building	
#1	CALL TO ORDER			
#2	ADOPTION OF AGENDA			
#3	MINUTES	3.1 Regular Agricultural Service Board Meeting Minutes held March 29, 2017 – to be adopted	4	
		3.2 Business Arising from the Minutes	-	
#4	DELEGATIONS	4.1	-	
#5	OLD BUSINESS	5.1	-	
#6	NEW BUSINESS	6.1 Letter to the Chair	10	
#7	STAFF REPORT & ASB MEMBERS BUSINESS & REPORTS	7.1 Staff Report	13	
#8	CORRESPONDENCE	8.1 Forage Facts –June 2017	20	
		8.2 Back Forty – June 2017	24	
		8.3 Alberta Ups Fight Against Aquatic Invasive Species	47	
		8.4 Herbicide Resistance Becoming The New Reality in Alberta	49	
		8.5 Rove Beetles Quietly Working for You	52	
		8.6 Ascochyta Disease Levels on Field Pea Seeds	53	
		8.7 New First Aid and Safety on the Farm Program Launched	57	

8.8 2017 Report Card DRAFT June 5 2017 MJV	58
8.9 Keep Watch For This Potential New Invader	85
8.10 Alberta Crop Report – Crop Conditions as of June 06 2017	87
8.11 Don't Be Fooled By This Weeds Pretty Flower	89
8.12 Glyphosate Labels to Change, Health Canada Announces	90
8.13 Cutworm Pest of the Crops on the Canadian Prairies	92
8.14 Glyphosate Clears Health Canada Re - Evaluation	93
8.15 Map of The Unharvested Acres in Alberta	95
8.16 Moisture Situation Update as of April 26 2017	96
8.17 Moisture Situation Update as of May 15 2017	101
8.18 Crop Conditions as of May 30, 2017	105
8.19 Moisture Situation Update as of June 05 2017	107
8.20 Moisture Situation Update as of June 11 2017	109
8.21 Plant 2017: It's All About Making The Best Out Of a Bad Situation	113
8.22 Pre-emergence Herbicides are a Proactive Approach for Weed Management	117
8.23 The Solar Power Math is Starting to Add Up	120
8.24 Unharvested Acres - New information from AFSC	126
8.25 Update on The Bovine Tuberculosis Situation	128
8.26 Big Uptake For More Humane Euthanasia Device	129
8.27 Vertical Farming Grows Up and Comes of Age	130
8.28 SARDA Summer Field School	136
8.29 Calendar –June, July, August	138

#9 IN CAMERA N/A

#10 ADJOURNMENT

Minutes of a REGULAR AGRICULTURAL SERVICE BOARD MEETING MUNICIPAL DISTRICT OF GREENVIEW NO. 16

M.D. Administration Building

Valleyview, Alberta on Wednesday, March 29, 2017

#1				
CALL	TO	OR	DF	R

Chair Allen Perkins called the meeting to order at 9:33 a.m.

PRESENT

A.S.B. Member - Chair	Allen Perkins
A.S.B. Member - Vice Chair	Shelley Morrison
A.S.B. Member – Councillor	Bill Smith
A.S.B. Member	Warren Wohlgemuth
A.S.B. Member	Laurie Mitchell
A.S.B. Member	Larry Smith

ATTENDING

Manager, Agriculture Services	Quentin Bochar
Assistant Manager, Agriculture	Dave Berry

Services

Recording Secretary

Agriculture Supervisor Trainee

Beverly Spence

Kristin King

ABSENT

A.S.B. Member – Councillor

Dale Smith

#2 AGENDA MOTION: 17.03.08 Moved by: Shelley Morrison That the Agenda be adopted as presented.

CARRIED

3.1 REGULAR ASB

MOTION: 17.03.09 Moved by: Warren Wohlgemuth

That the minutes of the January 18, 2017 Regular Agricultural Service Board

Meeting to be adopted as presented.

CARRIED

#3.3 BUSINESS ARISING FROM MINUTES

3.3 BUSINESS ARISING FROM MINUTES

#4.0 DELEGATIONS

4.1 PEACE FORAGE SEED ASSOCIATION (PFSA)

MOTION: 17.03.10 Moved by: Bill Smith

That the Agriculture Service Board accept the presentation from PFSA as

information.

CARRIED

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4.3 PROBLEM WILDLIFE OFFICER

MOTION: 17.03.11 Moved by: Laurie Mitchell

That the Agriculture Service Board accept the presentation from the

Problem Wildlife Officer as information.

CARRIED

4.2 PEACE COUNTRY BEEF AND FORAGE ASSOCIATION (PCBFA)

MOTION: 17.03.12 Moved by: Allen Perkins

That the Agriculture Service Board accept the presentation from PCBFA as

information.

CARRIED

Chair Allen Perkins called a recess at 10:55AM

Chair Allen Perkins reconvened meeting at 11:10AM

#5
OLD BUSINESS

N/A

#6 NEW BUSINESS

6.1 AGRI – SHOW SPONSORSHIP

MOTION: 17.03.13 Moved by: Larry Smith

That the Greenview ASB direct administration to pursue major day sponsorship for the Peace Country Classic Agri-Show for the value of \$1500.00 with funding to come from the 2017 Ag Operational Budget.

CARRIED

#7 STAFF REPORT & ASB MEMBERS BUSINESS & REPORTS

7.1 STAFF REPORT & ASB MEMBERS BUSINESS & REPORTS

COUNCILLOR BILL SMITH:

- Attended FarmTech 2017
- Attended ASB Provincial Conference
- Attended Beef Conference

MEMBER WARREN WOHLGEMUTH:

- Attended FarmTech 2017
- Attended ASB Provincial Conference

MEMBER SHELLEY MORRISON:

• Attended Alberta Beef Industry Conference

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CHAIR ALLEN PERKINS:

- Attended FarmTech 2017
- Attended ASB Provincial Conference

MEMBER LARRY SMITH:

No Report

MEMBER LAURIE MITCHELL:

No Report

STAFF REPORTS

MOTION: 17.03.14 Moved by: Shelley Morrison

That the Agriculture Service Board accept the Manager's report and ASB

members reports as information.

CARRIED

#8
CORRESPONDENCE

- 8.1 FORAGE FACTS MARCH
- 8.2 BACK FORTY FEBRUARY
- 8.3 FARM CREDIT CANADA ACCEPTING APPLICATIONS
- 8.4 HELP SHAPE FARM AND RANCH LABOUR LEGISLATION
- 8.5 WATER QUALITY CONSIDERATION FOR SURFACE AND SUBSURFACE AGRICULTURE DRAINAGE
- 8.6 AG PLASTIC FACTS
- 8.7 21ST CENTURY HOMESTEADING
- 8.8 HEMP & FLAX OPPORTUNITY SEMINAR
- 8.9 PEST INSIDER
- 8.10 FUSARIUM IS TOUGH
- **8.11 GOODBYE GLYPHOSATE?**
- 8.12 HERBICIDE RESISTANCE IS EVERYWHERE YOU LOOK
- 8.13 PCBFA NEW ZEALAND AGRICULTURE & WINERY TOUR

8.14 PCBC 2017 GRANT REPORT

8.15 PROPOSED LABOUR RULES FOR ALBERTA FARMS GO PUBLIC

8.16 THE BIG WRECK: ONE MILLION UNHARVESTED ACRES

8.17 ALBERTA WHEAT AND ALBERTA BARLEY LAUNCH NEW MENTORSHIP AND LEADERSHIP PROGRAM

8.18 CONCERNED ABOUT THE UPCOMING PHASE-OUT OF IMIDACLOPRID?

8.19 ALBERTA BEEF PRODUCERS – 2018 NOMINATIONS

8.20 WORKING WELL WORKSHOP - GRANDE CACHE

8.21 CALANDERS - MARCH, APRIL, MAY

CORRESPONDENCE LISTING

MOTION: 17.03.15 Moved by: Shelley Morrison

That the Agricultural Service Board accept the correspondence listing as

presented.

CARRIED

#9 IN CAMERA 9.0 IN CAMERA

#10 ADJOURNMENT

10.0 ADJOURNMENT

MOTION: 17.03.16 Moved by: Larry Smith

That the Agricultural Service Board Meeting adjourn at 12.17 a.m.

CARRIED

Agricultural Service Board Chair	Manager, Agricultural Services



REQUEST FOR DECISION

SUBJECT:	Alberta Agriculture – Letter to the Ch		A A D D D OVED FOR CUIDANICCION
SUBMISSION TO:	AGRICULTURAL SERVICES BOARD		APPROVED FOR SUBMISSION
MEETING DATE: DEPARTMENT:	June 28, 2017 AGRICULTURE	CAO: GM:	MANAGER: QFB PRESENTER: DB
DEFAITIVIENT.	Advicocione	GIVI.	FILISLIVIEN. DD
RELEVANT LEGISLAT			
Provincial (cite) – <i>N</i> /	'A		
Council Bylaw/Polic	y (cite) – <i>N/A</i>		
RECOMMENDED AC	TION:		
MOTION: That the A	Agriculture Service Board accept the p	esentation from	PFSA as information.
BACKGROUND/PROI	POSAL:		
The Agricultural Serv	vice Board Program Team is planning fi	eld visits between	early June and late September.
A field visit is a full da	ay process starting with a one hour mee	ting with the Agrid	cultural Service Board Members.
BENEFITS OF THE RE	COMMENDED ACTION:		
_	ral Service Board Program Team will so	•	
Legisiative ai	nd Environmental Funding Streams of t	ne ASB Grant Pro	grann.
	THE RECOMMENDED ACTION:		
1. There are no	perceived disadvantages to the recom	mended motion	
ALTERNATIVES CONS	SIDERED:		
Alternative #1: ASB	may choose to not accept the informat	ion as presented.	
FINANCIAL IMPLICAT	ΓΙΟΝ:		
N/A			
Direct Costs:			
Ongoing / Future Co	osts:		
STAFFING IMPLICAT	ON:		

N/A

PUBLIC ENGAGEMENT LEVEL:

Greenview has adopted the IAP2 Framework for public consultation.

Using that framework outline the proposed level of public engagement associated with the recommended action.

INCREASING LEVEL OF PUBLIC IMPACT

Inform

PUBLIC PARTICIPATION GOAL

Inform - To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.

PROMISE TO THE PUBLIC

Inform - We will keep you informed.

FOLLOW LID ACTIONS		
FOLLOW UP ACTIONS:		
N/A		
ATTACHMENT(S):		
N/A		



Agriculture Grants Program Section 2nd Floor, J.G. O'Donoghue Bldg. 7000 – 113 Street Edmonton, AB T6H 5T6 Phone: 780-980-4878 www.agriculture.alberta.ca

May 23, 2017

Mr. Allen Parkins, Chair Agricultural Service Board Municipal District of Greenview No. 16 Box 1079 Valleyview, AB TOH 3NO

Dear Mr. Parkins:



The Agricultural Service Board Program Team is planning 15 field visits across Alberta this year and are planning to visit your municipality. The purpose of our visit is to strengthen our relationships with ASBs and to fulfill recommendations made by the Office of the Auditor General. This is a unique opportunity for the ASB to highlight programs, accomplishments and meet with ASB Program staff.

We would like to schedule a date to meet with your ASB between early June and late September. We know that this is a busy time of year for ASB programs but the objective of our visit is to see the results of your programs as we get the best sense of the success of your programs when they are actively ongoing.

A field visit is a full day process starting with a short meeting (approx. one hour) with your ASB members followed by an office and field tour with your Agricultural Fieldman. The primary focus of the field visit is to tour the municipality to see examples of programs implemented under the Legislative and Environmental Funding Streams of the ASB Grant Program. The field visit focuses on the outcomes and deliverables of your Strategic Plan and we may request to see outcomes of particular programs as part of the field visit. We have included a "Frequently Asked Questions" document with this letter that provides a general overview of the field visit process.

Please arrange a time for us to come visit with your ASB. Pam Retzloff, ASB Program Coordinator, will be coordinating the dates for the field visits so please contact her at pam.retzloff@gov.ab.ca or phone (780) 427-4213 at your earliest convenience.

We are looking forward to the opportunity to come and visit with you this summer.

Sincerely,

Voun Macaulay
Doug Macaulay, Manager

Agricultural Service Board Program

Enclosure

cc: Quentin Bochar, Agricultural Fieldman

Mike Haugen, CAO



REQUEST FOR DECISION

SUBJECT:	Manager's Report and ASB member	•		
SUBMISSION TO:	AGRICULTURAL SERVICES BOARD		APPROVED FOR SUBMI	ISSION
MEETING DATE:	June 28, 2017	CAO:	MANAGER:	QFB
DEPARTMENT:	AGRICULTURE	GM:	PRESENTER:	DB
RELEVANT LEGISLA	TION:			
Provincial (cite) – <i>N</i>	V/A			
Council Bylaw/Poli	i cy (cite) – <i>N/A</i>			
RECOMMENDED A	CTION:			
	Agricultural Service Board accept the	e Manager's repor	t and ASB members rep	ports as
information.				
BACKGROUND/PRO	POSAL:			
The Manager's rep	ort contains information pertaining to	the departments	operations for the time	period fi
the previous meeti	ng to time of writing of the agenda.			
The ASR Member's	report contains information pertaining	to the members ar	tivities for the time neri	od from
	ng to the current meeting.	to the members at	tivities for the time pen	ou mom
BENEFITS OF THE R	ECOMMENDED ACTION:			
1. Having the A	ASB vote in favour of the Ag Departmen	t Staff report, will a	llow the ASB to be kept (updated
on the Ag D	epartment activities			
DISADVANTAGES C	OF THE RECOMMENDED ACTION:			
1. There are n	o perceived disadvantages.			
ALTERNATIVES CON	 VSIDERED:			
Alternative #1: The	e ASB may choose to not accept this rep	ort as information		
FINANCIAL IMPLICA	ATION:			
N/A				
Direct Cacter				

Ongoing / Future Costs:
STAFFING IMPLICATION:
N/A
PUBLIC ENGAGEMENT LEVEL:
Greenview has adopted the IAP2 Framework for public consultation.
INCREASING LEVEL OF PUBLIC IMPACT Inform
PUBLIC PARTICIPATION GOAL
Inform - To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.
PROMISE TO THE PUBLIC
Inform - We will keep you informed.
FOLLOW UP ACTIONS:
N/A
ATTACHMENT(S):
Agriculture Department Report

M.D. of Greenview Agricultural Services Department Activity Report

For the Period: March 29, 2017 – June 28, 2017

<u>ENQUIRIES – Manager, Asst. Manager, Administrative Assistant and Ag. Supervisor</u> Trainee

Weeds	54
Pests	104
Trees	8
Workshops	34
Rentals	153
Equipment Purchasing	52
Extension	20
employment	5
Miscellaneous	207
TOTAL ENQUIRIES (year)	587

MEETINGS / CONFERENCES / TRAINING

Manager

- March 30, 2017 Coyote Calling Seminar, Puskwaska
- ➤ April 19, 2017 Grande Cache Co-ops Meeting, Grande Cache
- May 8, 2017 All Staff Orientation Day, Valleyview
- May 9, 2017 Meeting Alberta Environment and Parks (Willmore), Grande Cache
- May 24-25, 2017 Mountain Pine Beetle Symposium, Jasper
- June 15, 2017 PRAAAF Meeting, Vallevview
- ➤ June 20, 2017 Meeting with Alberta Parks, Grande Prairie

Asst. Manager Agriculture Services

- March 30, 2017 Coyote Calling Seminar, Puskwaska
- April 4, 2017 Hemp/Flax Seminar, Whitecourt
- ➤ April 19, 2017 Grande Cache Co-ops Meeting, Grande Cache
- ➤ May 1, 2017 Staff Starts
- May 8, 2017 All Staff Orientation Day, Valleyview
- May 9, 2017 Meeting Alberta Environment and Parks (Willmore), Grande Cache
- May 11, 2017 Community Services Meeting
- May 16, 2017 Meeting of the Minds (SARDA), Falher
- May 16, 2017 Sylvan and Co, Falher
- ➤ May 24, 2017 Spray Crew Workshop, Peace River
- May 25, 2017 Weed Inspector Workshop, Peace River
- ➤ June 13, 2017 Ratepayer BBQ, Valleyview
- June 15, 2017 PRAAAF Meeting, Valleyview
- ➤ June 20, 2017 Ratepayer BBQ, Grovedale

Agriculture Supervisor Trainee Agriculture Services

- March 30, 2017 Coyote Calling Seminar, Puskwaska
- ➤ April 5, 2017 21st Century Homesteading Workshop, Fairview

- April 27, 2017 NAOSH Conference, Grande Prairie
- May 8, 2017 All Staff Orientation Day, Valleyview
- May 24, 2017 Spray Crew Workshop, Peace River
- May 25, 2017 Weed Inspector Workshop, Peace River
- ➤ June 13, 2017 Crop ID Workshop, Donnelly
- June 13, 2017 Ratepayer BBQ, Valleyview
- June 15, 2017 PRAAAF Meeting, Valleyview

STAFFING

All seasonal staff have started as of May 1, 2017, with all positions filled.

RESOURCES, EQUIPMENT, AND FACILITIES

Received the following equipment items have been delivered:

- 3 pt. Hitch Rotary Tiller
- Bale Hauler
- No- Till Drill
- Grain Vacuum

First and second reading for the Schedule of Fees were passed, the following rates have been proposed by Council;

Bale Hauler \$150.00\day
No- Till Drill \$150.00\day
Grain Vacuum \$50.00\day

BUDGET

Nothing to report at this time.

EXTENSION EVENTS

SARDA and PCBFA have been conducting a number of Extension events in partnership with Ag Services and Ag Services has been posting the information to our web page, Facebook, and Twitter accounts.

Please see following list of events (year):

- Jan 18, 2017 Peace Agronomy Update, Fairview
- Jan 19, 2017 Transition Planning Work Shop, GP
- Jan 21, 2017 Winter Watering Systems Tour, Hines Creek
- Feb 7, 2017 Peace Country Beef Cattle Day, Fairview
- Feb 14, 2017 Working Wells Workshop, Debolt
- Feb 15, 2017 Septic Sense Workshop, Debolt
- Feb 16, 2017 Transition Planning Workshop, Grande Prairie
- Feb 21, 2017 Soil Health & Carbon Day, Spirit River
- Feb 23, 2017 Living with Wildlife Workshop, Grimshaw
- Feb 24, 2017 PCBFA AGM, Fairview
- March 14, 2017 Solar Power Workshop, Grande Prairie
- March 15, 2017 Predator Snaring Workshop, Puskwaska CANCELLED
- March 15, 2017 Solar Power Workshop, Woking

- March 16, 2017 Solar Power Workshop, Falher
- March 16-18, 2017 SARDA Smoky River Trade Show, Falher
- March 20, 2017 Shelterbelts, Eco Buffers& Beneficial Insects Workshop, Bezanson
- March 21, 2017 Shelterbelts, Eco Buffers& Beneficial Insects Workshop, High Prairie
- March 29, 2017 Surface Rights Workshop, Worsely
- March 30, 2017 Coyote Calling Clinic, Valleyview Gun Range
- April 4, 2017 Industrial Hemp & Flax, Whitecourt
- April 5, 2017 ScienceOrama (Canola School), Lacombe
- April 6, 2017 Working Wells Workshop, Grande Cache
- April 12, 2017 Ag Drone School, Guy
- June 13, 2017 Crop ID Session, Donnelly
- June 25, 2017 Grazing School with Jim Garrish, Enilda
- June 26, 2017 Grazing School with Jim Garrish, Teepee Creek
- June 27, 2017 CanolaPalooza, Lacombe
- July 13, 2017 Summer Field School, Donnelly Sportex
- July 13, 2017 Field Day at Research Farm, Fairview
- August 23, 2017 Pasture Rejuvenation Field Days, Rycroft
- August 24, 2017 Pasture Rejuvenation Field Days, Grovedale
- September 16, 2017 Stockmanship School with Dylan Biggs, Gordondale
- December 7, 2017 Western Canada Conference on Soil & Health, Edmonton

PROGRAMS

VETERINARY SERVICES INCORPORATED

Agreement for 2017 has been signed. 13 new cards have been issued.

> PEST AND NUISANCE CONTROL

WOLF HARVEST INCENTIVE

To date, 87 wolves have been presented for payment. Total 2016 incentive expenditures: \$26,100.00.

Year	Number of Wolves	Amount
2012	70	21,000.00
2013	53	15,900.00
2014	48	14,400.00
2015	98	29,400.00
2016	154	46,200.00
2017	87	26,100.00
	510	153,000.00

WOLF PREDATION MANAGEMENT PROGRAM

There has been 0 new requests for assistance with verified wolf predation. There has been zero wolves removed.

COYOTE PREDATION MANAGEMENT PROGRAM

There has been 2 new requests for assistance with verified coyote predation. There has been 4 coyotes removed.

OTHER PREDATORS MANAGEMENT PROGRAM

There have been 3 new requests for assistance with other predator problems. There has been 2 weasels removed. There has been 2 skunks removed

BEAVER INFRUSTRUCTER PROBLEM AND AG FLOODING ASSITANCE PROGRAM

There has been 40 new requests for assistance with beaver caused flooding issues. There has been 96 beavers removed.

WILD BOAR BOUNTY

There have been 0 sets of Wild Boar ears turned in. Total 2017 incentive expenditures \$0.00.

PRENTAL EQUIPMENT

Yardman was at the Grovedale yard May 16, 2017 to service equipment Hay Hiker and Grain Vacuum on site (VV) now

Summary Report

Loc	Equipment	Equipment Number	S/N	Total Days		ost/ Day	To	tal Charges
1.61	Equipment 1000 Earth Mover	SOIL3100	3/N	0	s	150.00	s	ital Charges
W CC	1000 Earth Mover	SOIL3101		3	\$	150.00	Š	600.00
	900 Earth Mover	SOIL3070				150.00	Š	500.00
GD GD	425 Earth Mover	SOIL3072		0	\$	100.00	\$	
w	12' Pull-Type Blade	SOIL3099	12502	2	Š	50.00	s	100.00
w	Vee-Ditcher	VDIT3210	12502	0	\$	50.00	Š	100.00
	Field Sprayer	ASB0004/SPRY3123	1400151	8	\$	50.00	5	400.00
W CC	Field Sprayer	SPRY3076	1400101	3	Š	50.00	Š	150.00
GD	Field Sprayer	SPRY3121		0	\$	50.00	Ś	230.00
w	Boomless Sprayer - 300 Gal	SPRY3124	33262	2	\$	50.00	Ś	40.00
w	Estate Sprayer - Pull Type	SPRY3007/3127/3128	33202	4	\$	20.00	Š	80.00
CC	Estate Sprayer - Pull Type	SPRY3008			Ś	20.00	Š	
GD	Estate Sprayer - Pull Type	SPRY3206		Ö	Ś	20.00	Š	
w	Estate Sprayer - 3 pt hitch	SPRY3129	312101212	0	\$	20.00	Ś	
w	Water Tank and Trailer	TRL18	311201111	3	\$	25.00	Š	75.00
GD	Water Tank and Trailer	TRLS		ő	Ś	25.00	Š	
w	Quad Wick Applicator	SPRY3211		0	Š	10.00	Š	
CC	Quad Wick Applicator	SPRY3212		0	\$	10.00	Š	
GD	Quad Wick Applicator	SPRY3213		0	\$	10.00	Ś	
w	Quad Mount Sprayers	SPRY3010		4	Ś	10.00	Š	30.00
CC	Quad Mount Sprayers	SPRY3011		0	Š	10.00	Š	-
GD	Quad Mount Sprayers	SPRY3012		1	\$	10.00	\$	10.00
w	Backpack Sprayers	SPRY3083		0	-	FREE	Š	
CC	Backpack Sprayers	SPRY3084		0		FREE	Ś	
GD	Backpack Sprayers	SPRY3085		0		FREE	Š	
w	Hand Wick Applicator	MISCR98		0		FREE	Ś	
w	Granualar Pesticide Bait Applicator	PEAC3207		Ö	\$	30.00	Š	
w	Manure Spreader	MANU3209	02104185UMSL75	Ö	ś	200.00	ś	
w	Fertilizer Spreader	FERTO01	AG3W53000FV001001	6	Š	100.00	Š	500.00
w	50' Heavy Harrow c/w Granular Applicator	HARR3113	245514031	10		150.00	Ś	1,500.00
	33' Heavy Harrow c/w Granular Applicator		243314051		\$		_	1,500.00
GD	30' Land Roller	HARR3082 ASB0005		7	\$	150.00 200.00	\$	1,400.00
w					\$	200.00	\$	1,400.00
GD	30' Land Roller	ROLLO001	12-1374	0	\$		\$	
w	14' Heavy Disc	ASB0001	AGCW08420EX035270	3	\$	400.00	\$	1,200.00
GD	14' Heavy Disc	DISCI	AGCW084EX035262	0	\$	400.00	\$	
w	Cattle Squeeze	SQUE3099		8	\$	25.00	\$	75.00
CC	Cattle Squeeze	SQUE3097		0	\$	25.00	\$	
GD	Cattle Squeeze	SQUE3098		0	\$	25.00	ş	106.25
w	Loading Chute with 4 Panels	CHUT3115		10	\$	25.00	\$	
CC	Loading Chute with 4 Panels	CHUT3097		6	\$	25.00	\$	150.00
GD	Loading Chute with 4 Panels	CHUT3096		1	\$	25.00	\$	25.00
w	Panel Trailer with 20 Panels + 1 Gate	TRL6	5PTBF1627E1019676	6	\$	25.00	ş	25.00
GD	Panel Trailer with 20 Panels + 1 Gate	PANL3046/T69		0	\$	25.00	\$	
w	Tag Reader	GALA3117/3118		2		FREE	\$	
w	Burdizzo Clamps			0		FREE	\$	
w	Dehorner	MISCR98		0		FREE	\$	
w	Truck Mount Seeder	SEED3073						10.00
				1	\$	10.00	\$	
w	Quad Mount Seeder	SEED3074		5	\$	10.00	\$	
w	Hand Seeder	MISCR98		5 0	\$	10.00 FREE	\$	50.00
w	Hand Seeder Post Pounder	MISCR98 ASB0002		5 0 6	\$	10.00 FREE 125.00	\$ \$	50.00
w	Hand Seeder Post Pounder Post Pounder	MISCR98 ASB0002 POST3126		5 0 6 7	\$	10.00 FREE 125.00 125.00	\$ \$	50.00 500.00 875.00
W CC GD	Hand Seeder Post Pounder Post Pounder Post Pounder Post Pounder	MISCR98 ASB0002 POST3126 ASB0003		5 0 6 7 12	\$ \$	10.00 FREE 125.00 125.00 125.00	\$ \$	50.00 500.00 875.00 1,500.00
W W CC GD	Hand Seeder Post Pounder Post Pounder Post Pounder Bin Crane	MISCR98 ASB0002 POST3126 ASB0003 CRAN2123	09 1473	5 0 6 7 12	\$ \$ \$ \$	10.00 FREE 125.00 125.00 125.00 100.00	\$ \$ \$ \$ \$ \$ \$	50.00 500.00 875.00 1,500.00
W CC GD W	Hand Seeder Post Pounder Post Pounder Post Pounder Bin Crane Water Pump and Pipe - Alberta Ag.	MISCR98 ASB0002 POST3126 ASB0003 CRAN2123 PUMPR99	09 1473	5 0 6 7 12 1	\$ \$ \$ \$ \$	10.00 FREE 125.00 125.00 125.00 100.00 200.00	\$ \$ \$ \$ \$ \$ \$ \$	50.00 500.00 875.00 1,500.00
W W CC GD W	Hand Seeder Post Pounder Post Pounder Post Pounder Bin Crane	MISCR98 ASB0002 POST3126 ASB0003 CRAN2123	09 1473	5 0 6 7 12	\$ \$ \$ \$	10.00 FREE 125.00 125.00 125.00 100.00	\$ \$ \$ \$ \$ \$ \$	50.00 500.00 875.00 1,500.00
W W CC GD W	Hand Seeder Post Pounder Post Pounder Post Pounder Bin Crane Water Pump and Pipe - Alberta Ag.	MISCR98 ASB0002 POST3126 ASB0003 CRAN2123 PUMPR99	09 1473	5 0 6 7 12 1	\$ \$ \$ \$ \$	10.00 FREE 125.00 125.00 125.00 100.00 200.00	\$ \$ \$ \$ \$ \$ \$ \$	50.00 500.00 875.00 1,500.00 105.00
W W CC GD W W	Hand Seeder Post Pounder Post Pounder Post Pounder Post Pounder Bin Crane Water Pump and Pipe - Alberta Ag, Survey Equipment	MISCR98 ASB0002 POST3126 ASB0003 CRAN2123 PUMPR99 SURV3091 METL3061 MISCR98	09 1473	5 0 6 7 12 1 0	\$ \$ \$ \$ \$ \$	10.00 FREE 125.00 125.00 125.00 100.00 200.00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	50.00 500.00 875.00 1,500.00 105.00
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W W W W W	Hand Seeder Post Pounder Post Pounder Fost Pounder Bin Crane Water Pump and Pipe - Alberta Ag. Survey Equipment Metal Detector Hay Sampler, Measuring Wheel, Bin Probe	MISCR98 ASB0002 POST3126 ASB0003 CRAN2123 PUMPR99 SURV3091 METL3061 MISCR98	09 1473	5 0 6 7 12 1 0 1 4	\$ \$ \$ \$ \$ \$ \$ \$	10.00 FREE 125.00 125.00 125.00 100.00 200.00 10.00 10.00 FREE	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	50.00 500.00 875.00 1,500.00 105.00 40.00 20.00
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> VEGETATION MANAGEMENT

Of note to the ASB, a new species of invasive plant has been discovered in our MD and area. Invasive Phragmites which is a type of Reed Grass has been verified in the ditch along Hwy 43 in proximity to the Smoky River. Another site that has been verified is in Grande Prairie County along Hwy 40 in proximity to the Wapiti River. Also there is a third site by the Iosegun River along Hwy 43 that is waiting for confirmation on whether it is native or invasive.



ROADSIDE VEGETATION MANAGEMENT

Currently 237 ditch kilometers have been sprayed. The program is projected to spray approximately 2200 Km of MD roads.

- Training Complete
- Sprayed FSO and Operations yards

SPOT SPRAYING / ATV / UTV

Various sites have been completed. The program is projected to spray approximately 75 Ha

BRUSH SPRAYING

Currently 17 ditch kilometers have been completed. The program is projected to spray approximately 300 Ha of brush

PESTICIDE CONTAINER STORAGE

Empty jugs will be shredded and hauled away by the Clean Farms contractor in the fall.

FENCELINE AND PRIVATE LAND SPRAY PROGRAMS

There are currently 5 agreements with work completed by Ag Services staff, and an additional zero agreements where landowner completed the spraying.

SPRAY EXEMPTION AGREEMENTS

Deadline of April 28, 2017. For 2017 there are 106 Agreements signed at this time.

WEED CONTROL

#	Re- Inspections	Weeds Present	Personal Contact	Phone Calls	Weed Alerts	Weed Warnings	Notices	Enforce
1458	47	139	82	28	74	0	0	0

Town	#	Weeds Present	Personal Contact	Weed Letters
Valleyview	0	0	0	0
Fox Creek	0	0	0	0

AGRICULTURAL PESTS

Grasshopper surveys will be completed early August this year. FHB Surveys will be completed. Club Root in canola, and Blackleg Surveys will be completed.

SEED CLEANING PLANT

The Valleyview Seed Cleaning Cooperative held a directors meeting on Jan 10, 2017. The direction coming out of that meeting was to propose the dissolution of the Seed Cleaning Cooperative at the next Shareholders meeting. An attempt to hold a shareholders meeting was made on March 3, 2017, but there were not enough people present to form a quorum. According to the By-Laws a second meeting has to be held 7 days later at the same time and location. Therefore on March 10, 2017 a second shareholder's meeting was attempted, again there was not enough people present to constitute a quorum, so according to the By-Laws a motion was made and carried indicating that those shareholders present at the meeting will constitute a quorum. The outcome from the shareholders meeting is to continue with the process of dissolution of the Valleyview Seed Cleaning Cooperative.

<u>Miscellaneous</u>

Estimated Usage	Swan Lake	Grovedale Fish Pond	Kakwa River	South View
Vehicles on site	23	0	0	0
User #'s	50-75	0	unknown	0
% Site capacity	30%	0	1%	0

Please Note:

Docks have been installed on Grovedale Fish Pond and Grande Cache Lake

Forage Facts

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June 2017. Volume 13, Issue 140.



Seeding Season is Well Underway at PCBFA!

By: Jen Allen

The whole PCBFA crew has been hard at work getting ready for this year's seeding season. We spent the majority of May at the Research Farm doing prep work such as discing, harrowing, applying fertilizer, seed counting and weighing, seed drill calibration, and plot layout. After a few delays and hiccups along the way due to equipment issues, we were finally able to finish seeding all 899 plots at the Research Farm on June 1st. A special thanks to the MD of Fairview for letting us borrow the fertilizer applicator, and to GPRC Fairview for assistance with discing.

Next up we will be seeding our Valleyview and Rycroft plots, as well as doing work on our Pasture Rejuvenation Project at the Wanham PGR.





Prepping seed for Cocktail Mixture Trials

Fertilizer application





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All smiles after completing seeding at the Research
Farm—go team!

We are looking forward to showing off our plots at our annual Field Day at the Research Farm. We have a lot of great things in store for this year's Field Day, so don't forget to mark your calendars and join us on July 19th at the Fairview Research Farm!



Methods for Successful Soil Testing

By: Jen Allen

It is no surprise that healthy soil is the foundation towards a healthy life for plants, animals, and humans. Soil sampling and testing is continuing to play an important role in monitoring soil health, as well as management practices related to fertility, cropping, and nutrients. Although taking soil samples may seem like a simple task, the soil test results may not be as accurate if your sampling technique is improper. In addition to soil sampling technique, the timing of sampling and sample preparation are also factors that can contribute to successful and accurate test results.

Technique

Soil variability has a large impact on soil sampling. Soil samples that are being sent in for testing analysis should be representative of the majority or average of the field or field portion in question. Therefore, it is important to have sufficient knowledge of the field in order to select a suitable location that will give a good overall representation of soil health information. Observable characteristics to assist with selection are things such as crop development, soil colour and/or landscape features. Furthermore, for all types of soil sampling techniques, it is suggested to take about 15-20 core samples per site. You also want to avoid areas that are dead/dying, back furrow, have old hay, straw or manure piles, waterways, saline areas, eroded knolls and old fence rows.

Random composite soil sampling is one common method for collecting soil samples and works best in fields that are uniform, have little variation and are less than 80 acres (Figure 1).

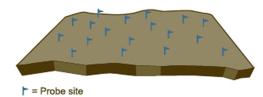


Figure 1. Random composite soil sampling.

Directed/managed random soil sampling is more appropriate for fields where it is more challenging to classify a single dominant area to represent the

majority of the field. For this sampling method, you will need to sub-divide the field into zones based on management practices and/or major characteristics. Then take 15-20 random core samples from each zone (Figure 2).

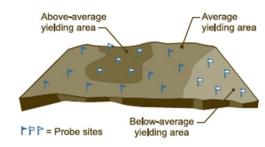


Figure 2. Directed/managed random soil sampling.

Benchmark sampling is another common method and works best for fields that have more variability, such as hills. For benchmark sampling, you want to choose an area of your field (approx. 30m x 30m) and perform all of the sampling within that area in a grid pattern.

Again, you want to pick a main production area that has similar characteristics to the majority of the field (Figure 3).

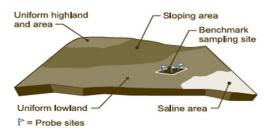


Figure 3. Benchmark sampling.

If you cannot identify a main area on your field, then you may select more than one benchmark site based on topography or other characteristics such as management, soil moisture, soil texture and/or slope. When multiple benchmark areas are needed, the soil sampling method is called directed benchmark sampling (Figure 4). To avoid inconsistency in your soil tests, the benchmark site(s) should be documented with a GPS or a marker so that you are able to return to the same spot to sample in the years to follow. Sampling from the same benchmark area(s) annually will provide you with the ability to observe changes in soil health over a duration of time.

...continued on page 3

Thank you to the PCBFA Board of Directors

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We are always looking for ideas! Give us a call!

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- Growing Forward2 Assistance
- Environmental Farm Plans
- Scale & Tag
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 for member use
- Soil & Livestock Water Quality Testing

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Methods for Successful Soil Testing continued



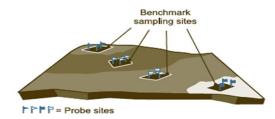


Figure 4. Directed benchmark sampling.

A soil sampling core tool (or sometimes called a soil probe) is the best tool to use to take the samples (PCBFA also has this tool available for rental use). For each of the 15-20 cores, take the samples at 0-6 inches depth (0-15cm) (surface soils). For improved nitrogen and sulfur evaluation or problem soils, additional samples at depths of 6-12 inches (15-30cm) and 12-18 inches (30-60cm) (sub-surface soils) should be taken at each site as well. Once cores are collected, you can mix core samples taken from the same depths together, just remember to label accordingly to avoid confusion.

Timing

According to Alberta Agriculture & Forestry, "cultivated fields for spring seeding should be sampled after October 1. These fields can also be sampled in the spring, but time may be limited then. Forage fields for seed, pasture or hay may be sampled after September 1. Fields for fall-seeded crops should be sampled one month before seeding. Problem soil areas may be sampled anytime. Frozen and water-logged soils should not be sampled because of the difficulty in obtaining a representative sample" (Alberta Ag & Forestry, 2004).

Preparation for Analysis

Soil tests can include results from both chemical and biological analysis. In order to get your sample ready to send into the lab, it needs to be air dried. Separate each core sample by depth, and simply spread the samples out on a paper plate, sheet, or shallow container/box and let air dry at room temperature. Samples may also be stored in the fridge for a few days, or in the freezer long-term.

As a PCBFA Member, you can send your soil samples to the lab directly through us! If you need any help with taking your soil samples or preparing them for analysis, just contact us!

(Alberta Ag & Foresty, 2004; AXIOM Agronomy Ltd., 2017)

Free Soil Sample Testing!

Did you know that with a PCBFA
Membership, you are eligible to receive 1
free soil test a year? PCBFA staff are also
available to go through the soil
test results with you and provide
recommendations if needed.
Please feel free to contact us at
any time for more information!

Warm Welcome to our Summer Research Technician Student, Anna Duke!



Hello everyone! My name is Anna, and I am very excited to be joining the PCBFA this summer as a Research Technician. I am currently working towards an undergraduate degree in Environmental and Conservation Science at the University of Alberta. I am majoring in Land Reclamation and hope to one day help restore impacted ecosystems within Alberta. I grew up in the Edmonton area and am very excited to experience all the Peace Country has to offer. I have always loved being outdoors and have a strong passion for animals. I am an avid equine enthusiast and currently entering my seventh year as a member of the Canadian Pony Club. Furthermore, I enjoy hiking and backpacking throughout the summer and spend much of the winter months skiing. Among these activities, I always try to find time to give back to my community and help in any way possible. I hope that working with PCBFA this summer will give me a new outlook on many areas of both agriculture and the

environment. I am looking forward to the opportunities and skills I will gain as I take on this new job, and hope to meet many new faces along the way!



Upcoming Events

Future Climate Scenarios in the Peace River Region
Presentation

June 14th 10:00am-11:30am

GPRC Campus Fairview

Jim Gerrish 1-Day Grazing School June 25th

Enilda

June 26th

Teepee Creek

Field Day at the Research Farm

July 19th

Fairview Research
Farm

ACIDF Pasture Rejuvenation Field Days

August 23rd

Rycroft

August 24th

Grovedale

Stockmanship School with Dylan Biggs

September 16th

Saddle Hills
County

New Zealand Ag Study Tour

Nov 23rd-Dec 12th Final payment due Aug. 1st

New Zealand

Western Canada Conference on Soil Health & Grazing

December 5th-7th www.absoilgrazing.com

Radisson Hotel Edmonton

For more information or to register for any of these great events, please visit our website or call the Fairview office at 780-835-6799 or email Jen at jen@pcbfa.ca

Thank You to our Corporate Sponsors









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SARDA BACK FORTY

Mission: To Facilitate the transfer of unbiased ideas and information between research institutions, industry and agriuclutural producers.

SUMMER ISSUE

June 2017

SARDA Ag Research Responding to producers' needs

by Suzanne Boulet, SARDA

SARDA has a busy year planned! We're expanding our public events and research trials so that we can better communicate with the community and help producers. To that end, we've also introduced new trials; SARVTs, which compare the varieties of wheat and peas commonly grown in our area to new varieties likely to perform better. These trials will aid producers to make informed decisions on varietal selection.

Some of our events this year are already familiar to you. Our Footprints program returns again this summer, though our trial site locations have changed. If you want to see our

results for yourself, we'll have directions to our trial sites in our Back Forty summer edition in June, and each site will have its own green mailbox with a handy booklet full of maps and details about the trials. If you can gather at least five people to join you, then call 780-837-2900 to arrange a time for a guided tour.

Our Summer Field School returns as well on July 13th. We have fabulous speakers lined up this year: Robyne Bowness will discuss faba beans; Ralph Cartar will share his studies on native pollinators; Jan Slaski will talk about the industrial hemp trials; and Lil Trudeau and Jack Wyne will be speaking about

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This publication made possible in part by:









Priaire Corner

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the hail trials. The school also includes a hot lunch and guided tours of other trials. Registration is \$75, and you can register online at www.sarda.ca or by phone at 780-837-2900. We hope to see you there!

Our participation in the Classroom Agriculture Program will help grade four students at Eaglesham and St. Stephen's schools learn about the importance of agriculture in our lives.

On June 13, we will also be hosting a presentation on a Land Suitability Rating System by Pierre-Yves Gasser and Michael Bock. They will be presenting results from research assessing potential future climate change's impact on land suitability for agriculture in the Peace Region. It is a similar system to the Canada Land Inventory. The session will take place in the AFSC conference room in Falher.



An aerial view of last year's Dion East trial site.

There is no charge to attend but we do ask you to preregister through the website, www. sarda.ca. Check in starts at 9 a.m. In the afternoon we will also be hosting a crop seedling ID session to help municipal staff identify crops grown in the Peace Region.

There's plenty of other events that we'll be bringing to you, like crop walks and shelterbelt tours. Be sure to keep checking our website, www.sarda.ca, and subscribe to our news notifications to get the details as they become available.

New this year, are the SARDA Ag Research Variety Trials (SARVTs) Empowered for Farmers. These trials will compare new varieties of peas or wheat against varieties currently grown in the area. Comparing currently grown varieties against the new varieties tested in RVTs allows farmers to see the difference with their own eyes and use that information to do what's best for their farm. We have three sites of SARVTs running this year on two crops: wheat and peas. These trials are located in Smoky River, Spirit River, and Big Lakes locations. We'll be comparing seven pea varieties and twenty wheat varieties.

Hail trials will be returning for Year 2, in collaboration with Farming Smarter, InnoTech Alberta and AFSC. These trials simulate hail damage at different growth stages of the crop and evaluate what practices, such as fungicide and nutrient application, can best help the recovery and yield of the crop. Smoky River weather is unpredictable at the best of times (as anyone who's had to give up their 2016 crops



Wheat with late hail damage of different severities; from left to right: no damage, 33% damage, and 67% damage, showing delayed maturity and reduced yield potential

June 2017 Page 3

to snow could tell you), and the best we can do is learn how to adapt to the whims of hail and the damage it brings.

Our 2016 hail canola trial found that hail had a relatively minor effect at the 3-leaf and 7 days after flowering stages. Interestingly, damage at the first flower stage in tended to show a moderately negative hit to yield when exposed to severe hail. Damage at 21 days after flowering tended to show the most impact from hail, with even mild hail reducing yield to 30% of our un-hit check, and the most severe hail reducing

yields to a mere 3%.

Fungicide application seemed to help with the recovery of peas damaged by hail, with yields increasing across almost all timings and levels of hail compared to the yields of damaged peas without applications. The nutrient blend seemed to have no effect on yield.

The application of a nutrient blend to wheat damaged by hail tended to increase yield when compared to the yield of untreated wheat hit by hail. Hail still decimated wheat in the later stages of its growth. While a nutrient blend may help increase yield compared to untreated wheat, those yields are still nowhere near the yield of wheat not damaged by hail.

While these results are interesting, they are far from being confirmed. These are the results after one year of trials at one location. Similar trials are being conducted at Vegreville and Lethbridge that may produce different results. Our current results may contain uncontrollable factors such as weather or moisture, and by conducting the trial again we can get results generalizable



Areal view of all treatments of the hail canola project, August 8, 2016

Page 4 June 2017

continued from page 3

over different weather patterns.

Our perennial forages trials are now in their first year of data collection. These trials on legumes and grasses are meant to provide farmers and ranchers with information on how these varieties perform by analyzing yield, winter survivability, and nutritional quality. This study is spread throughout Alberta, testing 31 species across 9 different regions.

We still have our regional variety trials (RVTs) running, along with multiple industry trials and pulse trials. More complete information on our trials will be available online at www.sarda. ca very soon. The 2016 Annual Report will be published soon and uploaded to our website,

so be sure to subscribe to our news notifications to know when it's up.

SARDA is always seeking new ideas to better accomplish our mission of facilitating the transfer of unbiased information between research institutions, industry, and agriculture producers. We hope that you will continue to support and guide us for the years to come.

We would like to thank our current sponsors and collaborators who make this all possible: our municipal sponsors MD of Smoky River, MD of Greenview, Northern Sunrise County, County of Grande Prairie, and Big Lakes County; our commission sponsors Alberta Wheat Commission, Alberta Barley Commission, Alberta Pulse Growers, Alberta Canola Producers Commission, Canola Council of Canada, and Alberta Conservation Association: government agencies Agriculture and Agri-Food Canada, InnoTech Alberta. and Alberta Agriculture and Forestry; and our collaborators Mighty Peace Watershed Alliance, Lesser Slave Watershed Council, Farming Smarter, Peace Region Forage Seed Association, and Agriculture Financial Services Corporation (AFSC).

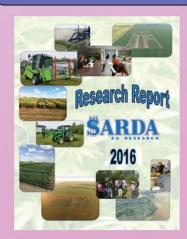
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June 2017 Page 5



Proper planning needed for optimal crop rotation benefit

As farmers begin preparations for seeding their land this spring, crop experts say producers should keep in mind that they have a good option to pick with proven success: they can protect the soil, improve their business, reduce the costs of caring for their land through natural means and increase the efficiency of their labour and equipment by applying just one methodology: crop rotation.

But specialists also warn that while it can be very beneficial, a crop rotation schedule has to be very carefully planned to render the optimal results producers can hope to achieve through this long standing agricultural tradition.

Research on the benefits of crop rotation in prairie agriculture is known to have started as early as the first decade of the 20th century, with volumes of scientific information having been published since then, bringing to light how the rotation of various types of crops has been helping farmers with increased yields and higher soil and crop quality.

Over decades, continued research and experiments, stepped up particularly after 1950s, just kept adding to the information pool about how the process aids the farmer and the soil. And today, universities and agricultural research centres keep the effort going.

What that decades of research has produced is now benefiting Alberta farmers in a number of ways.

Foremost among the benefits crop rotation can bring to a producer are financial considerations like improving profits by higher yielding, higher quality crops; increasing efficiency of labour and equipment by spreading out seeding and harvest periods, and naturally enhancing soil quality while breaking disease cycles that develop in monocrop environments. Added to that is the improved weed control coupled with the increase in residual nitrogen in soil to support the healthy growth of the next round of crops.

Researchers and crop specialists emphasize that maximum benefits from crop rotation can be gained through a four-stage rotation involving cereals, oilseeds and pulses rather than a two-crop, two-season regime. A study analyzing 1996 data from a prairie crop insurance program showed there was consistent and significant rise in the yields based on such a rotation model.

"Wheat grown in a rotation with oilseeds and pulses was 16 percent higher yielding than continuous wheat grown on the same land at Scott, Saskatchewan, from 1993 to 1999. Wheat yields following flax, pea, and canola were 16 percent, 11 percent, and eight

percent higher, respectively, than after wheat," said the study. (Manitoba Crop Insurance data, Bourgeois and Entz, 1996).

Crop specialist Neil Whatley of AG Info Centre, AB, draws attention to another very important aspect of the benefits derived from crop rotation: "Soil water conservation is enhanced with crop rotations because, for example, pulses (pea and lentil) have a root depth of approximately 0.6 meter (2 feet) under normal conditions while oilseeds (canola and mustard) have depth of 1.4 meters (4.5 feet) and wheat is 1.8 metres (6 feet) under normal growing and soil conditions."

"Therefore, water and soil nutrients are extracted from different levels of the soil profile when these crops are grown in succession," Whatley said.

"Pulse crops and forage legumes fix nitrogen via root nodulation, so there are savings in synthetic nitrogen costs," he went on.

"When (you) grow wheat after pulse, the wheat usually gets higher protein because of the extra nitrogen in the soil after a legume (pulse and forage), which draws a premium price. Pulse or legume forages are also important because they enhance the overall soil quality by, for example, increasing the amount of arbuscular mycohizae in the soil."

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continued from page 5

Specialists also recommend that long-term rotations include perennial forages alongside annual crops and are ideal as the former is considered an excellent way of reducing disease risk for the latter.

Another consideration farmers are advised to keep in mind is the soil biology, which may or may not be conducive to a particular crop in their rotation calendar. For example, mycorrhizal association, a symbiotic link between fungi in the soil and roots of plants, is proven to function as an efficient "transport system" for pulses, allowing the roots to have more access to the moisture and nutrients in the soil while canola and cereals don't seem to benefit from that link as

much as pulse crops to produce higher yields. Hence, specialists suggest planting peas or flax on cereal or canola stubble may render above average results in an optimal rotation cycle.

In that context, testing salinity of the soil is also considered a must to ensure the crop yield and quality are satisfactory for the business operation.

With so many factors to take into account and include

in rotation planning, crop specialists and farm business management experts recommend that agricultural producers keep researching, learning and adapting their practices to emerging new information on crop rotation procedures.

Doing so is bound to pay off in higher quality, higher yield and ultimately more profitability, according to experts.

NUMBERS OF MICROBES IN SOI	L
Microbial group	No./gram of soil
Bacteria	100,000,000-1,000,000,000
Fungi	100,000-1,000,000
Algae and Cyanobacteria	1,000-1,000,000
Protozoa	1,000-100,000

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Woodlot Insect Management

Agri-News, May 15, 2017

When it comes to trees, there are a few different insects to keep an eye out for this year.

"The yellow-headed spruce sawfly has been a problem for spruce the last few years, as well as spider mites," says Toso Bozic, woodlot management specialist, Alberta Agriculture and Forestry. "White pine weevil has also been a problem for young spruce trees as they target the leader (the top branch). Poplar and willow tree borer has been very dominant, along with a large infestation of forest tent caterpillar in the

"Sawfly larvae can be removed by hand and squished, whereas mites can be controlled with high pressure soap water, or by encouraging beneficial insects such as lady beetles. Young willow trees infected by willow borer can be cut to the base of the tree. Regrettably, there is very little that can be done with large aspen trees infected by poplar borer."

northern part of the province.

Besides insects and diseases, other factors can potentially contribute to declining or dying trees including improper use of chemicals, salt along roads, age of the trees, soil type, wildlife damage, competition, and heavy grazing. Bozic recommends only using insecticides as a last ditch effort to control problems with insects.





"Monitoring is key when it comes to insects. From mid-May until October 1, landowners should check their trees weekly to see what is going on. Monitoring also helps them keep on top of which trees may need watering under dry conditions, or may need help with other issues."

If monitoring turns up insects, disease, or any other issues contributing to tree weakening, Bozic suggests taking a picture.

"E-mail a photo to me at toso. bozic@gov.ab.ca so we can discuss what you've found. If you can also provide photos from the surrounding area it'll help me determine the extent of the problem, as well as if other issues are at hand."

More resources on insects are available at Insects, Diseases, Weeds, and Pests Publications on the AF website. Contact:Toso Bozic 780-415-2681 Page 8 June 2017



The Human Component

by SARDA Staff

Summer Staff

My name is Seanna Benoit and I grew up on a grain farm near Guy, Alberta. I am returning to SARDA as a summer student for my 2nd summer. My parents are Gabe and Lorrie Benoit. I am entering my third year of schooling at the U of A, studying Nutrition. When I graduate, I hope to become a Registered Dietitian and work in a hospital. I enjoy spending time outdoors, cooking and learning new things. I am looking forward to another fun and successful summer with SARDA!

Hello everyone, my name is Suzanne Boulet. I am the daughter of Normand and Rita Boulet. This is my second year at SARDA where I'll be helping Shelleen this summer as an Extension Assistant. I'm studying Creative Writing at Capilano University in North Vancouver, and I hope to apply my writing skills to help SARDA reach out as we expand our Extension program. In my spare time I like to crochet, play video games, and work on my novel. I hope everyone has a good season, even if the rain is trying to put a (literal) damper on that!

Hello, my name is Robyn Simoneau. This is my fourth summer at SARDA and I am happy to be back. I recently finished my fourth year at the University of Alberta pursuing a combined bachelor's in drama and education. My parents are



Right to Left, front to back: Seanna Benoit, Suzanne Boulet, Robyn Simoneau, Nuoy Gauthier, Dave Cloutier, Joseph Sylvain, Kailey Ouellette

Charles and Michelle Simoneau and they farm south of Guy. Happy seeding everyone!

My name is Nuoy Gauthier, I am the daughter of Victor and Ying Gauthier. Most of my childhood was spent on a farm south of Donnelly. I just finished my first year of my Bachelor of Education for elementary in Grande Prairie Regional College. This will be my second summer working at SARDA. In my free time I like camping, playing sports and reading.

Hello again, my name is Dave Cloutier, eldest son of Jean Cloutier and Suzelle Brault. I have a Bachelor's degree in Sciences and starting a Nursing Program at Grande Prairie Regional College in September. It is my second year at SARDA and so far, I am loving the experience as much as I did last year. I am looking forward to an excellent summer working with an amazing group of people.

Hello, My Name is Joseph Sylvain. My parents names are Jean and Valerie Sylvain. I grew up on a farm by Girouxville. I'm taking business in school at Trinity Western University and I will be going into my second year. I'm working for Alberta agriculture doing pest monitoring for the government. I will be setting up traps, and recording data which I will send to the government offices in Brooks and Westlock.

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Hi, my name is Kailey Ouellette, and this is my first summer at SARDA. I finished my first year of a Bachelor of Agriculture, majoring in Animal Science at the University of Alberta. My parents are Claude and Annette Ouellette, and I grew up in Donnelly. My interests include reading, puppies, and travel. I hope everyone has a good season!

New Staff

Darcy Boisvert B.S.A. is the new Research Agrologist with SARDA Ag Research in Falher. The position consists of managing the day to day activities of the research trials and coordinating the field staff to make sure all of the tasks are accomplished. He has been in the agricultural industry all his life, starting with the local family farm in Girouxville AB. Darcy attended Lakeland College in Vermilion AB

in 2011 and received a college diploma in crop technology. In 2013 Darcy transferred into the Agronomy program at the University of Saskatchewan and received his bachelor's of science in agriculture (B.S.A.) in 2016. As a summer student Darcy assisted in small plot research with SARDA and did large scale research with Bayer Crop Science and BASF. After graduation Darcy worked briefly as an agronomist with Cargill and a territory representative with Dow Agro Sciences before coming full circle to begin his agricultural research career with SARDA. Darcy is currently living in the Girouxville area and plans to become more involved with the family farm.

Outside of work Darcy enjoys curling and camping with his girlfriend Whitney. With a large family in the area



Darcy is often spending time with his parents Richard and Pierrette, his siblings Marc and Angela and especially his two young nephews Zachary and Nathaniel.

Phone: 780-837-2900 Cell: 780-618-4732

Email: research2@sarda.ca

Do you Receive the Back Forty?



Rural Farm mailboxes in the MD's of Smoky River and Greenview, Big Lakes County and Northern Sunrise County receive complementary issues of the Back Forty Newsletter. Request your mailbox be classified as Farm by talking to your local Post Mistress to ensure you receive your copy.

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SARDA Ag Research is a producer directed, not for profit organization whose vision is to own an Advanced Agricultural Resource Center of Excellence. Build your legacy. Call Vance at 780-837-2900. Tax deductible benefits available.

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There are many technologies and practices farmers and ranchers can implement on their operations to reduce their energy footprint and protect (and possibly even increase) profit margins. Carbon emission reduction and energy sustainability can both be practiced while also running an economically sustainable farm.

Increasing energy efficiency often requires an up-front investment in order to obtain equipment that will save energy and money. Unfortunately, the initial costs of energy efficient products can be prohibitive for some producers. The Government of Alberta, through Growing Forward 2 (GF2) a federal, provincial, "" territorial initiative, offers two incentivebased programs aimed at helping Alberta farmers and ranchers reduce energy consumption and thus costs.

The *GF2* On-Farm Energy Management Program (OFEMP) and the *GF2* On-Farm Solar Photovoltaic (OFSPV) Program offer farmers and ranchers the opportunity to become energy efficient by sharing the cost to purchase energy efficient or renewable technologies. These initiatives are intended to make energy efficient technology as affordable as current technology, making the environmentally friendly choice also the economically sensible choice.

Helping Make Energy Efficiency Affordable

by Kale Scarff, Energy Outreach Officer

Eligible projects of OFEMP include:

- Construction projects that install high-efficiency equipment from the program's Funding List;
- Retrofit projects that improve operation energy usage per unit of production; and
- Installation of submetres to monitor on-farm electricity and/or natural gas usage.

Eligible OFSPV systems must be:

- Grid-tied, not off-grid;
- Approved under Alberta's Micro-Generation Legislation;
- Positioned to optimize sunshine and minimize shading;
- Have manufacturerwarranties on: Solar modules, Racking, Inverters and/or Microinverters: and
- Producing power that is used in the production of a primary commodity.

The government has partnered with three grassroots organizations staffed with Energy Outreach Officers whose role is to promote the OFEMP and the OFSPV Program to Alberta communities. Energy Outreach Officers are available to attend community events, talk about energy efficient technologies, as well as answer questions about the

OFEMP and OFSPV Program and explain the benefits of these programs to farmers and ranchers. The Outreach Officers are also more than happy to meet one-on-one with farmers and ranchers to help them find potential energy efficiency solutions for their operation. You can get in touch with your regional Outreach Officer by contacting your municipality, or by calling your regional representative directly.

Regional Contact Information North-central Alberta, from the MD of Mackenzie down to Wetaskiwin County. Gateway Research Organization (GRO).

Energy Outreach Officer – Kale Scarff Phone: (780) 307-7849 Email: groextension@telus.net

Eastern Alberta, from Lac La Biche County to the Special Areas.

Lakeland College. Ben.Sey@lakelandcollege.ca

South-central Alberta, from Clearwater County to Cypress County. SouthGrow Regional Initiative.

Energy Outreach Officer – Vern Steinborn Phone: (403) 894-0050 Email: vern.steinborn@ southgrow.com

To learn more about the OFEMP and the OFSPV Program visit www.growingforward.alberta.ca

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Wild Boar in Alberta

Agri-News, May 29, 2017

Wild boar has been an issue in Alberta for a number of years, and Alberta Agriculture and Forestry (AF) is starting the next phase to help eradicate the pest.

"Wild boar are not native to Alberta," says Perry Abramenko, inspection officer, AF. "They came to the province in the 1980s and '90s as livestock. Over the years, some animals escaped, and have established several feral/wild populations."

Perry says there has been a bounty program for wild boar in Alberta since 2008. "It's a grant program under which municipalities pay out \$50 for a set of ears as proof a boar has been removed. Over the years, the return from the program has declined significantly as these animals are very intelligent and, once a herd is attuned to

human activity, are very hard to hunt or trap. The bounty program for participating municipalities has been extended until June 30th. After then. consultation with our stakeholders will determine if the program will continue or change to align with eradication efforts."

The main problem with wild boar is environmental damage. "When they're feeding, they do a lot of rooting to the extent a lawn or pasture can look like a rototiller has gone through it. They will also contaminate

water sources and can carry diseases that can transfer to animals and humans. They can also cause a lot of damage to crops, especially cereals and hay bales."

Bounty returns indicates that most wild boar activity is in the Lac St. Anne and Woodland counties. "As such. we're focusing our efforts on those two areas, even though we're looking for reports from anywhere. We're also looking to partner with academic institutions to do work on research and surveillance. And, we're reaching out to the public for their assistance with the problem and are putting together an education program with handouts and brochures."

Bottom line, says Abramenko, is that more information is needed on the scope of the situation. "Outside of the bounties, we don't have a lot of data of wild boar. Right now, an estimate of numbers would be a guess, but we don't have any evidence numbers are increasing."

For more information on wild boar or sightings, call the Ag-Info Centre at 310-FARM, 310-3276, or go to Alberta Agriculture's website.

Contact: Alberta Ag-Info Centre 310-FARM (3276)



- Capable of producing an average of six or more piglets per litter and two litters per year, one of the highest reproductive rates of any large mammal in the world
- Aggressive and primarily nocturnal
- About 30 viral and bacterial diseases can jump to humans or livestock from feral boars, including *E. coli*, bovine tuberculosis and footand- mouth disease.
- Boars will eat almost anything, including crops, roots, tubers, worms, insects, bird eggs, snakes, lizards, mice and even deer.
- Boars dig to access some food, ripping the ground open much like a Rototiller, causing extensive damage and contaminate water bodies and reservoirs
- Adult males can weigh anywhere between 90 and 120 kilograms

					(JUNE 2017
	Event Name	Location	Time	Date	Cost	Comments
	Soils Workshop with Dr. Jill Clapperton	NPARA Research Farm, 1/2 mi West of North Star	9:30 am - 5:00 pm	June 9	\$40	Call 780-836-3354 to pre-register
Agriculture and Agri-Food Canada	Land Suitability Rating System	AFSC Conference Room, Falher	9:00 am - 11:00 am	June 13	FREE	Call 780-837-2900 to pre-register
SARDA	Crop ID Session	SARDA Plots South of Donnelly	1:00 pm-3:00 pm	June 13	FREE	Call 780-837-2900 to pre-register
	Lesser Slave Watershed Council AGM	Faust Community Hall	1:00 pm - 4:30 pm	June 16	FREE	Call 780-523-9800 to pre-register
	1-Day Grazing School with Jim Gerrish	Enilda	9:00 am - 4:30 pm	June 25	\$40	Call 780-835-6799 for more info
	1-Day Grazing School with Jim Gerrish	Teepee Creek	9:00 am - 4:30 pm	June 26	\$40	Call 780-835-6799 for more info
FARMING SMARTER Greens provident	Farming Smarter Field School	Lethbridge	ТВА	June 27 - 29	\$195 lunch included	www.farmingsmarter.com
S ALBERTA CANOLA	Canola Palooza	Lacombe Research & Develpment Centre, Lacombe, Alberta	9:30 am - 4:00 pm	June 27	FREE	Visit: http://albertacanola.com/ event/canolapalooza/
SARDA	Summer Field School	Donnelly Sportex, Donnelly, Alberta	9:00 am-4:00 pm	July 13	\$75 lunch included	Visit www.sarda.ca to register or call 780-837-2900
Canadä	Cential Celebration Beaverlodge Research Farm	Beaverlodge Research Farm Beaverlodge, Alberta	ТВА	July 14	ТВА	
	Field Day at the Research Farm	Fairview Research Farm,	ТВА	July 19	FREE	Call 780-835-6799 for more info
	Pasture Rejuvenation Field Day	Rycroft	ТВА	August 23	FREE	Call 780-835-6799 for more info
	Pasture Rejuvenation Field Day	Grovedale	ТВА	August 24	FREE	Call 780-835-6799 for more info
WINTER CANDA	Western Canada Conference on Soil Health & grazing	Radisson Hotel Edmonton Alberta		December 5-7		
MUNICIPAL DISTRICT SMOKY RIVER FALHER, ALTA.	100 mg/s	MUNICIPAL DISTRICT OF GREENVIEW No. 16	LAKES	NORT	NORTHERN SUNRISE	County of Grande Prairie No. 1

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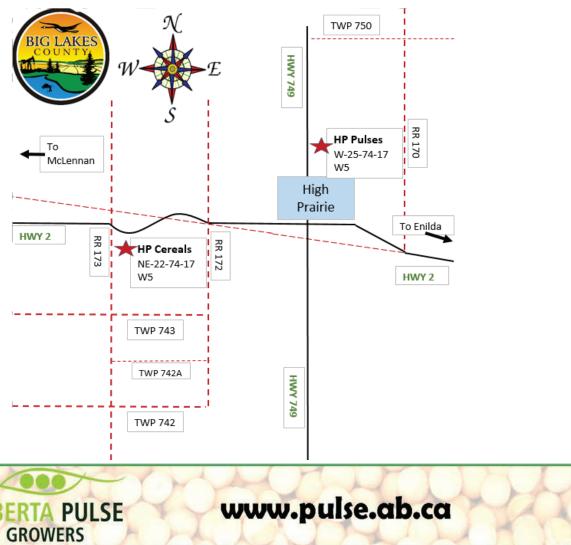
FootPrints Self-guided Tours

Would you like to see the results of our research firsthand? Feel like you need to stretch your legs after a long drive down our prairie roads? Why not stop by at SARDA's research sites? We encourage producers or anyone interested in agriculture to visit during the summer months. We have some really interesting trials running this year, and we'd be glad to have you check them out. Sites will open to the public by June 19th.

We have short trial descriptions and site locations in this article. At each location there will be a green mailbox with an information booklet to guide you, including detailed maps of each site, short descriptions of the trial, and a seeding map so that you can find the treatments you're most interested in. Also in the mailbox are disposable booties, which we ask visitors wear to comply with biosecurity measures at the sites and prevent the spread of crop diseases..



If you can gather 5 or more people to accompany you, call us at 780-857-2900 to arrange for a guided tour with one of our staff. We hope to see you there!



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Big Lakes Sites

High Prairie Cereals

(NE-22-74-17 W5)

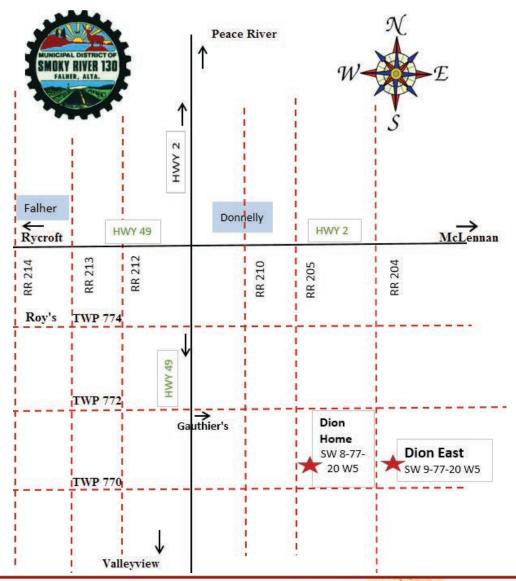
- SARVT: Wheat (20 varieties)
- Regional Variety Trials (RVT):
 - Barley (14 varieties)
 - CWRS & CWHWS Wheat (20 varieties)
 - CPSR & CNHR Wheat (12 varieties)

- CWGP & CWSWS Wheat (11 varieties)
- Oats (10 varieties)
- Regional Silage Trials:
- Barley (14 varieties)
- Wheat & Triticale (5 varieties)
- Oats (9 varieties)

High Prairie Pulses (W1/2-25-74-17 W5)

- SARVT: Peas (7 varieties)
- Perennial Trials:

- Mixture; grasses and alfalfa (9 combinations)
- Legumes (15 varieties)
- Grasses (11 varieties)
- Regional Variety Trials (RVT):
 - Yellow Peas (10 varieties)
 - Green Peas (6 varieties)
 - Flax (8 varieties)





www.albertawheat.com

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Smoky River Sites

Dion East

(SW-9-77-20 W5)

- SARVT: Peas (7 varieties)
- Regional Variety Trials (RVT):
 - Faba (6 varieties)
 - Flax (8 varieties)
 - Yellow Peas (10 varieties)
 - Green Peas (6 varieties)
 - · Canola:
 - CPT Canola Standard (22 varieties)
 - CPT Canola Straight Cut (effect of straight cut harvest)

- Mosaic Canola (efficiency of Micro Essentials & MAP blends)
- Faba (effect of different applications):
- Herbicides
- Fungicides
- Macro Nutrients
- Micro Nutrients
- Hemp trials:
 - Fertility (effect of N rates on hemp)
 - Hemp Varieties (12 varieties)
 - Seeding Date (effect of seed timing on hemp varieties)
- Hail Trials: Peas & Canola
- Other trials:
- Pulse Intercrop (mixture of

- lentil/peas with chickpeas/ faba beans)
- Pea Standability (effect of wheat stubble heights)
- Forage Cereals & Peas (performance of oats/barley/ triticale plus peas)

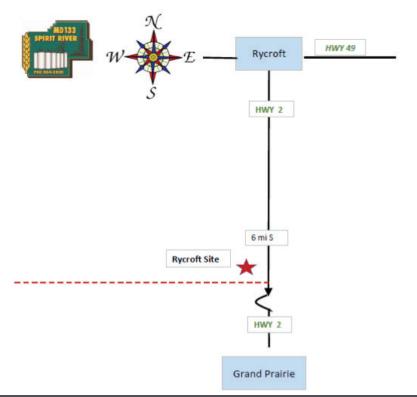
Dion Home

(SW-8-77-20 W5)

- SARVT: Wheat (20 varieties)
- Regional Variety Trials (RVT):
 - Barley (14 varieties)
 - Oats (10 varieties)
 - CWRS & CWHWS Wheat (20 varieties)
 - CPSR & CNHR Wheat (12 varieties)
 - CWGP & CWSWS Wheat (11 varieties)
- Hail Trials: Wheat
- Mosaic Wheat (efficiency of Micro Essentials & MAP blends)
- Winter Wheat Liquid (mitigation of nitrogen loss)
- Winter Wheat Granular (effect of granular N fertilizer)
- Oats: Beta Glucon Levels

Rycroft Site

- SARVT: Wheat (20 varieties)
- SARVT: Peas (7 varieties)





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Be BearSmart

Late May through to July marks breeding season for both grizzly and black bears. So in addition to bears looking for food—they can eat up to 20,000 calories a day—they are also looking for a mate! Extra precautions are required at this time for those that live, work or recreate in bear country. Being safe in bear country means managing attractants. This includes human food sources, pet food, garbage, composting and more.





Some helpful tips to avoid bear encounters if you live, work or recreate in bear country include:

- Securely store pet food indoors or in bear-proof containers. Same goes for garbage, recycling, or dead livestock —these can attract bears around your home or farm.
- Keep your BBQ clean—bears will smell food residues left behind.
- Carry your bear spray and make noise! This includes when you're out checking on calves or fence lines, bee yards, camping in the backcountry, or at forestry or industry work sites.
- Keep your eyes open and pay attention to bear sign—tracks, scat, scratched logs and trees, or upturned
 earth. Be calm and cautious if you see these signs, get your bear spray ready, and leave the area
 IMMEDIATELY.
- If hiking or biking, avoid thick bush, tight corners and blind hills to reduce the chance of surprising a bear.
- If walking with children, keep them close at all times and make sure they know what to do if you
 encounter a bear. Practice a "bear safety drill" with them ahead of time.
- Keep your dog on leash—dogs can trigger unwanted and negative encounters with bears.
- Keep your work or campsite clean—store food in airtight containers and cook meals at least 100m away from your main living area. Also pack out all garbage from sites as these can attract bears in.
- Use electric fencing to help protect calving grounds, bee colonies or other farm site areas. Electric fencing
 can also be used at camping or work sites.
- Remember: bears are curious, intelligent animals—once they learn about a new food source, even if left
 there unintentionally, they will return to it again. Keeping a clean site at your home, while camping or
 working will reduce encounters with bears, keeping both people and bears safe!



Most bear encounters can be prevented. It's up to us to decide how we will keep ourselves safe, and keep wild bears from becoming habituated, problem bears.

For more information on bears and Alberta BearSmart, visit:

http://aep.alberta.ca/recreation-public-use/alberta-bear-smart/default.aspx

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Research Summaries



Kabal S. Gill, SARDA Ag research

The research summaries are very short versions of the studies, to provide brief information and to start the thought process of readers to further explore the topics covered.

Readers are encouraged to contact SARDA or the cited sources for more information.

Canola seed yield and phenological response to plant density

- Compared 1.84, 3.68, 5.52, 7.36 & 9.20 plants / Sq. ft. plant densities for 16 siteyears in western Canada.
- At 8 sites with low productivity (average yield of 31.46 bu/ac), canola seed yield increased by 1.93 bu / ac for every additional plant / Sq. ft., except a very high level of the canola seed yield increase (7.54 bu / ac for every additional plant / Sq. ft.) at Carman 2010.
- At 3 sites with medium productivity (average yield of 36.12 bu/ac), canola seed yield increased by 1.98 to 2.85 bu / ac for every additional plant / Sq. ft.
- The 5 sites with high productivity (average yield of 67.45 bu/ac) did not show a consistent change in seed yield with change in plant density. Adequate nutrient availability at high productivity sites apparently increased plasticity of canola plants in low density treatments that offset the effects of plant density.
- There was a significant positive relationship of seed

yield with nitrogen availability.

- Higher plant density decreased the days to maturity.
- Canola plants spent 22% of life cycle flowering. Seed yield declined with increase in duration of flowering.
- Post flowering to maturity used 27% of canola life cycle.
 Seed yield increased as this period became longer.
- Overall, optimization of canola plant density for seed yield varied with productivity environment (plant density being more important at sites with lower productivity), and a longer post-flowering period is critical for increasing canola yield in western Canada.

(Source: Yantai Gan, et al. 2016. Can. J. Plant Sci., Vol. 96: Pages 151-159)

Nitrogen and seeding rate versus novel inputs for western Canada canola production

 Field trials (14) compared standard management practice (seed rate of 100 seeds / m2 that provided average density of 56 plants /m2 and soil test based fertilization) to other treatments with different inputs.

- Canola yields were economically optimized with the standard management practice.
- Strong trends for canola yield to be greater with 25% more N (liquid foliar application) and lesser with 25% lesser N (cut back at seeding).
- Flowering and maturity periods were slightly decreased with 25% lesser N.
- Increasing seed rate to 150 seed / m2 did not increase yield, but it decreased % green seed to potentially affect grade & economic returns.
- None of following inputs impacted canola emergence, days to flowering, days to maturity, yield and quality:
- Protinus seed primer @ 4 g / kg seed.
- C3 "stress reliever" @ 2.47 L
 / ha with 1st in-crop herbicide.
- Boron (Nexus 10%) foliar applied @ 2.47 L / ha at 5% flowering.
- Preced seed primer @ 6 mL/ kg seed.

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- Penergetic-p biomstimulator
 @ 123.5 g / ha at 1st true leaf and again at rosette stage.
- AGROSOLution CO2 uptake enhancer @ 2.5 kg / ha at 2-4 leaf stage & @ 3 kg / ha 2 weeks later.

(Source: Neil Harker & Murray Hartman. Can. J. Plant Sci. 2017, Vol. 97: Pages 32-43)

Canola rotation frequency impacts canola yield and associated pest species

- Field trials were conducted from 2008 to 2013 at 5 locations in western Canada.
- Compared continuous canola to canola-wheat, canola-peabarley, and lentil-wheat canola-pea-barley-canola rotations.
- Canola yield increased by 200 to 360 kg /ha (3.56 to 6.41 bu/ac) for each annual increase in the number of crops between canola.
- Compared with the peabarley rotation, there was no agronomic advantage to increasing rotation diversity by including wheat and lentils in a 6-yr, one in three canola rotation.
- Frequency of canola in rotation did not influence levels of canola oil or protein or major fatty acids.
- Weed density (pre-spray) was not strongly associate with canola yield.
- · Decreased blackleg and

- root maggot damage were associated with greater canola yield as rotational diversity increased.
- High canola yields were associated with sites that had cooler temperatures with adequate and relatively uniform precipitation events.

(Source: Neil Harker et al. 2015. Can. J. Plant Sci. Vol. 95: Pages 9-20)

Stubble management effects on canola performance across different climatic regions of western Canada

- Field trials were conducted in 2011 and 2012 (Swan Lake, MB; Indian Head, SK; Swift Current, SK; and Grimshaw, AB), and in 2012 (Kenton, MB; Falher, AB; and Lethbridge, AB) to provide broad range of growing conditions in western Canada.
- Tall stubble (50 cm) were compared to short stubble (20 cm). Stubble damage at some sites also allowed comparison between intact and flattened stubble.
- Tall stubble caught more snow than short stubble, but the benefit of additional spring soil moisture was masked by heavy spring precipitation in both years.
- For intact stubbles, there was a distinct yield benefit from tall stubble. Tall stubble may have slowed evaporation and soil drying that reduced moisture stress in later

- growing season, imparting a yield advantage.
- Canola biomass and yield were lower in damaged than intact stubble, for both short and tall stubbles. Soil warmed and dried slower in the spring under damaged stubble, limiting early-season growth, biomass and yield of canola.
- Plant population was higher in the intact than damaged stubble for tall stubble treatments, but it was higher in the damaged than intact stubble for short stubble treatments.

(Source: Michael Cardillo, et al. 2015. Can. J. Plant Sci. Vol. 95: Pages 149-159)

Canola cultivar mixtures and rotations do not mitigate the negative impacts of continuous canola

- From 2008 to 2013, several variations of continuous canola were compared to canola in rotations with wheat (W) and pea (P) near Lacombe, Beavrelodge, Edmonton, Melfort and Brandon.
- Eleven continuous canola variations involved 7 different sequences of herbicideresistant canola types (RR-LL-CF), 3 combinations of two RR, LL or CF cultivar mixtures in year 1 & 2 followed by RR canola in year 3; and a Westar in year 1 & 2 followed by RR canola in year 3.
- The 3 rotations were W-LL-RR, P-W-RR and W-W-RR.

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- Rotating herbicide-resistant canola types over years or mixing 2 cultivars of the same herbicide-resistant canola types provided no pest management, yield or seed quality benefits compared with growing the same herbicide-resistant canola cultivar in each of the 3 years.
- Weed biomass in 2013 canola was lower when preceded by P or W than most continuous canola treatments.
- Compared with continuous canola, the 3-yr rotations reduced the root maggot damage by 6% in 2010 and blackleg incidence and severity by >50% in 2013.
- Canola yield were 22% higher when canola was grown only once in 3 yrs. Compared to continuous canola and wheat-LL-RR rotation.
- Overall, most important mitigation strategy to ensure long-term sustainable canola production is to rotate canola with other crops.

(Source: Neil Harker, et al. 2015. Can. J. Plant Sci. Vol. 95: Pages 1085-1099)

Long term forage dynamics in pasture sprayed with residual broadleaf herbicide: A test of legume recovery

 Field trials were conducted from May 2010 to Sept. 2012, at 5 established stand sites located around Edmonton.

- Stand was mowed to 10 cm height and raked to remove extra litter.
- Compared over-seeding with white Dutch clover, alfalfa and none; followed by spraying with ACMP (aminocyclopyrachlor), AMP (aminopyralid) and none (7 to 10 days later).
- Both herbicides reduced legume biomass by 63.4 g/ m2 in year 1 to 22.6 1 g/m2 in year 3 (71-100% reduction across 3 years). Thus seeding legumes after herbicide application may not be effective for restoring legumes and their seeding should be delayed until herbicide residue has dissipated.
- other forbes and cover of dandelions were lower shortly following herbicides application only, to reach levels similar to non-sprayed controls by the 2nd growing season. Herbicides favoured dandelion recovery over others that influenced sward composition. Abundance of dandelions was more affected by mowing than herbicides.
- Grass biomass did not change significantly with herbicides. Net reduction in total biomass (grasses + legumes) was limited to 6.8%, suggesting some ability of grasses to compensate for legume removal.
- Legume biomass was greater following over-seeding, only non-sprayed controls, and decreased over time. By the 2nd growing season, legumes

were outcompeted by the vigorous grass community.

(Source: A.J Miller, et al. 2015. Can. J. Plant Sci. Vol. 95: Pages 43-53)

Biological nitrogen fixation by pulse crops on semiarid Canadian prairies

- A 3 year (2008 to 2010) study was compared biological nitrogen fixation (BNF) by different varieties of field pea, faba bean, lentil, chickpea & dry bean.
- BNF was highest in wetter 2010 and lowest in drier 2009 season. Results highlighted the negative effects of drier conditions on BNF and seed yield.
- Across years, field pea had most stable BNF ability.
- Average BNF was 52, 9, 68, 53 & 49 kg N / ha by chickpea, dry bean, faba bean, pea and lentil, respectively.
- There were large differences in BNF & yield among cultivars within a species, which varied with years.

(Source: Zakir Hossan, et al. 2017. Can. J. Plant Sci., Vol. 97: Pages 119-131)

Effect of seeding date and rate on malting barley quality

 A study at 8 locations in western Canada during 2006, 2007, and 2008. June 2017 Page 21

- Delayed seeding reduced yield and increased protein concentration. But Seeding date had few effects on barley quality.
- Seeding rate of 300 seeds /m2 (27.7 seeds / Sq. ft.) usually resulted in higher kernel yield with more uniform kernels and lower protein concentration, kernel weight and plumpness than seeding at lower rates.
- Compared to lower seeding rate, 300 seeds /m2 usually showed improved germination, Kolbach index, alpha-amylase, friability modification and friability homogeneity, had no effect on distatic power, and lowered beta-glucon level.
- Seeding malting barley relatively early at 300 seeds /m2 has potential to optimize both quality and yield plus acceptability for malting grade.

(Source: John O'Donovan, et al. 2017. Can. J. Plant Sci., Vol. 97: Pages 10-13)

Nitrogen availability from dairy cow dung and urine applied to forage grasses in eastern Canada

 Timothy dominated sward on a clay and a sandy soil received 4 treatments (Control, Dung @ 1.75 kg fresh weight / m2, Diluted urine @ 50 g N / m2 and Urine @ 100 g N / m2) at different times.

- Two cycles of treatments were monitored (2009-2010 and 2010-2011) using dry matter production and nitrogen nutrition index using ion exchange membranes.
- Mid-Sept. application treatments were clipped in May, July and Sept.; Early June application treatments were clipped in July and Sept.; and Early July summer application treatments were clipped in Sept.
- Relative cumulative dry matter yields were Urine > Dilute urine > Dung > Control.
- Nitrogen uptake by the crop clippings was greater from urine (8-28%) than dung (3-12%) on both soil types.
- Applied N was available to timothy for all application times, and being greater from urine than dung.
- Positive correlation (R2
 > 0.61) between nitrogen
 nutrition index and dry matter
 yield confirmed the capacity
 of ion exchange membrane
 to assess N availability from
 urine and dung.

(Source: Gilles Belager, et al. 2015. Can. J. Plant Sci., Vol. 95: Pages 55-65)

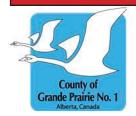
Influence of production

systems on return and risk from malting barley production in western Canada

Field trials were done from

- 2007 to 2009 at 7 locations (Beaverlodge, Brandon, Fairview, Indian Head, Lacombe, Lethbridge, Scott) in western Canada.
- Different stubble type (barley, pea and canola), N rate (50% and 100% of recommended) and fungicide application at flag leaf were compared.
- Planting barley on pea stubble was more profitable than on canola or barley stubble.
- Potential to reduce N rate (50%) on pea stubble, but results were not conclusive.
- Fungicide application increased yield and quality, but benefits and costs were about equal. Fungicide should only be considered when plant disease levels will significantly impact barley yield.
- Overall, Net return (NR)
 was higher and risk was
 lower for malting barley
 production, when preceding
 crop was pea, fungicide
 was applied and N rate was
 50%.
- Priority for malting barley production should be to not plant barley on barley stubble (rotate crops) control leaf diseases when present and apply adequate but not excessive N rate to avoid high protein content.

(Source: E.G. Smith, et al. 2016. Can. J. Plant Sci., Vol. 96: Pages 339-346) Page 22 June 2017



County of Grande Prairie Corner

By Sonja Raven, Agricultural Fieldman

It seems as though a difficult fall has been followed by a challenging spring in our world. Although the last week-plus of favourable weather has certainly helped seeding, we are definitely behind where we like to be this time of year. Hopefully the weather will continue to hold, and the seeding will soon be finished.

At the County, we have spent the last month training our seasonal staff and getting them ready for their busy summer of work. We are already out weed inspecting, and following up on files from last year. As the ditches and shoulders are still pretty wet, we hope to get spraying and mowing within the next couple of weeks.

We are also bracing for the retirement of our extremely talented Pest and Disease Inspector, Robert Sallis. Robert has spent the past five years at the County providing area growers with excellent pest and disease inspecting service, and solid herbicide recommendations. The information he has gathered has been very helpful to Alberta Ag in developing programs and forecasts based on local data. He has also developed significant expertise in tree ailments, which many of our residents have benefited from. It is with regret we announce his retirement, but with so many best wishes for a well-deserved break from the ordinary! Thank

you Robert for all you have brought to our team.



Our Weed Warrior Program is still looking for 2 more non-profit groups to come pick weeds and earn \$500! There is also an extra cash prize for Best Team Spirit, and Most Picked. The program typically runs in early July, and sites have already been identified. Contact Jill at 780-532-9727 to register your group today!

As fieldman, I have been able to put a bit more of the "field" back into my activities this spring. I have been working with some local producers on weed management plans, and pasture rejuvenation questions.

We hosted our first Organic Information Session in Demmitt this May. We had a number of area organic producers come and listen to Iris Vaisman from Organic Alberta, Nicole Kimmel, Provincial Weed Specialist, and Jerry Kitt, a successful local organic farmer. We also had the opportunity to hear about a weed control method that uses steam and a special mixture of food-grade oils to kill weeds. It was a great opportunity for us to meet some of our local



organic farmers, and see what concerns and issues they have that we may be able to help with. Plans for the next workshop are underway, with it likely being held in February of 2018.

A community meeting in Webster to discuss the ongoing Oxeye Daisy weed concerns, and introduce some information on white cockle was appreciated by those who were in attendance. The community approach to weed control can be so effective when you get people working together to deal with problems. As the County is responsible for weed control on municipal roads, we feel we are members of the community as well, and are working to do our part to control noxious weeds, particularly the oxeye daisy in this area. A summary of the meeting and the information presented was then mailed out to Webster-area residents, to ensure that those who were unable to make the meeting, still benefited from the information shared.

Finally, our Rural Acreage
Owner Pesticide Program
continues to receive attention.
This program is for those rural
landowners who own less than
40 acres, but need effective
herbicides to manage any
regulated weeds they may
have. Prior to this program

June 2017 Page 23

being developed, only domestic class weed control products were available to acreage owners, and these were often ineffective on controlling plants like common tansy or Canada thistle. A pesticide applicator course designed just for these landholders has been developed by Alberta Environment, the Association of Alberta Agricultural Fieldmen, and Lakeland College. The

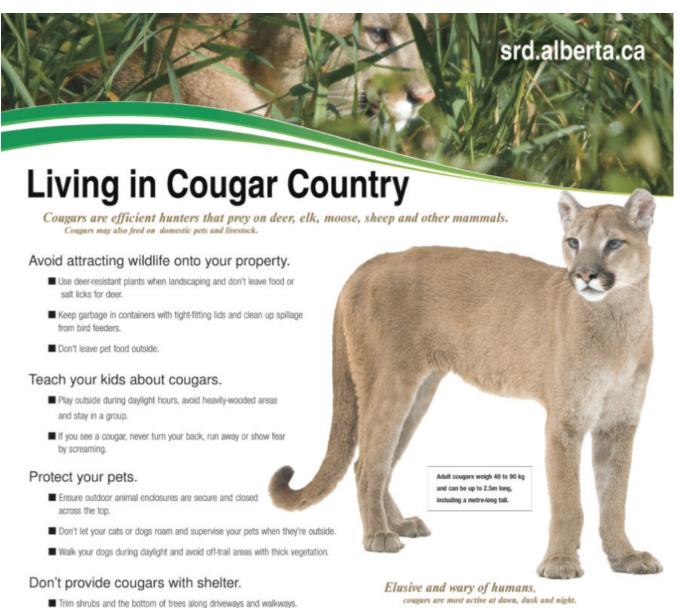
Close off spaces under decks and buildings.

Have good lighting in your yard, including motion detector lights.

course costs \$75, and teaches individuals how to safely apply herbicides on their property, as well as introducing them to principles of Integrated Pest Management. After successful completion of the on-line course, a certificate can be printed off and taken to me, as County Fieldman. I then confirm that the applicant understands the safe application principles, and rent them a sprayer with

sufficient herbicide to deal with their regulated weeds. PLEASE NOTE: this is not for nuisance weeds like dandelion. If you are a resident of the County of Grande Prairie, a rural acreage owner, and are interested in this program, please contact Sonja at 780-927-9727 and I would be pleased to help.

Thanks for reading, and I'll be back in the next issue!



Government of Alberta

Page 24 June 2017



Summer Field School



Join us for an educational day of speaker presentations and trial tours! You will have the chance to interact with fellow producers and experts to learn how to best take care of your farm. A 75\$ fee will include transportation to and from the trial sites, a barbeque lunch, a proceedings booklet, access to the speaker sessions, and a tour of SARDA trials on different crops and agronomic management practices.

This years topics:

Industrial Hemp Native Pollinators Faba Beans Hail Project

When: July 13, 2017 starting at 8:30 a.m.—3:30 p.m.

Where: Donnelly Sportex

How to register: online at www.sarda.ca, or phone

780-837-2900

We hope to see you there!

Subscribe to receive the latest news and notifications of events



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SARDA

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Fax: 780-837-8223

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www.sarda.ca





Alberta ups fight against aquatic invasive species

May 12, 2017 Media inquiries

The Alberta government is adding two new inspection stations and 30 new boat inspectors to aid in the ongoing fight against aquatic invasive species.



Watercraft inspectors intercept boat carrying invasive mussels at Sylvan Lake

The two stations opened earlier this year at Canada Border Services Agency sites, part of precautionary efforts following the discovery of zebra mussel larvae in Montana late last year.

The province has also extended the inspection season by several weeks in spring and fall, which began in March and will last until November. Two high-priority inspection stations – at Dunmore and Coutts – have extended their hours for 24-hour service.

"Our boat inspectors are on the front lines of protecting Alberta's beautiful lakes and waterways and drinking water. Because prevention is so important, we have one of the most robust and forward-looking aquatic invasive species programs in Canada."

Shannon Phillips, Minister of Environment and Parks

An infestation of zebra or quagga mussels could cost Alberta more than \$75 million annually – clogging water systems and power and irrigation infrastructure, and leading to reduced biodiversity and recreational fishing opportunities. Once introduced, aquatic invasive species are very difficult to eradicate.

Any watercraft entering Alberta – whether motorized, non-motorized or commercially hauled – must stop at one of 11 highway inspection stations in the province. In 2016, 19,028 watercraft were inspected entering the province. Seventeen tested positive for invasive mussels, up from 11 in 2015.

The 2017 season features more than 60 inspectors, three mussel-sniffing dogs and two roving inspection crews that can move between local boat launches. Three boats have already been intercepted this year carrying invasive mussels.

Quick facts

- In addition to government efforts, the Alberta Irrigation Projects Association is augmenting invasive mussel monitoring in southern Alberta irrigation reservoirs.
- Nearly 100 waterbodies will be monitored this season by Alberta Environment and Parks and other monitoring projects.
- Alberta has five boat inspection stations along the eastern border (Cold Lake, Vermilion, Wainwright, Oyen and Dunmore), three at the southern border (Carway, Del Bonita and Coutts), and three on the western border (Hinton, Jumping Pound and Burmis).
- Bypassing an open inspection station while carrying a water-based vessel is in violation of the Fisheries (Alberta) Act and can result in fines to individuals of up to \$100,000 or 12 months in prison.
- In 2016, Fish and Wildlife Officers issued 103 enforcement actions for boaters who bypassed inspection stations.

To report something suspicious on your boat or equipment, call 1-855-336-2628 (BOAT).

Herbicide resistance becoming the new reality in Alberta, says weed expert

Researchers in Lacombe are investigating mechanical ways to deal with resistant weeds, but there's no 'silver bullet'



By Alexis Kienlen FOLLOW

Reporter

Published: March 30, 2017

Crops

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"These new harvest weed seed control options should be looked at seriously." – Neil Harker *Photo: File*

Some Alberta farmers are in denial about weed resistance — and they're in for a rude awakening, says a federal weed scientist.

"We spend over \$12 an acre on average, and about \$500 million a year on wild oat control alone (on the Canadian Prairies)," said Neil Harker. "That's the weed we put the most pressure on, and the one where we have the most resistance."

And while it may look like there are many options for wild oat control in the crop protection guide, that's not the reality, Harker told attendees at the recent Controlled Traffic Farming Alberta conference. Group 1-resistant wild oat is increasing very quickly in the province. In random surveys, resistant wild oats jumped from 11 per cent of fields surveyed in 2001 to 50 per cent in 2014.

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He pointed to a field monitored by Red Deer agronomist Dale Fedoruk as a harbinger of things to come. In a field history of 11 years, there was only one year that Group 1 or Group 2 herbicide-resistant seeds were not found. In eight of the 11 years, Group 1 herbicide-resistant seeds were found on the field. In 10 out of the 11 years, both Group 1 and Group 2 herbicide-resistant seeds were found.

"There is not a single one of the major herbicides that would work on that field," said Harker.

He's heard from other producers near Lacombe, Edmonton, and Olds who are facing similar problems. In some situations, there is almost nothing available to control wild out populations, which means producers will have to resort to old chemistries, he said.

Shorter rotations and the decline in mixed farming (and hence the use of forages in rotations) are to blame, said Harker, who works at Agriculture and Agri-Food Canada's Lacombe research centre.

Researchers there are evaluating mechanical approaches to weed control. Many originated in Australia, which has the world's most resistant weed species (rigid ryegrass).

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One of the Lacombe studies is a three-year evaluation of the CombCut weed cutter.

"It's basically a machine that has knives, but the knives don't move, they're set on an angle," said Harker. "Anything that slides into the knives — like a cereal or an oat or a wheat or a barley, anything with a stiff stem — gets cut off."

Australia is also experimenting with techniques to reduce harvest weed seed populations, and researchers in Alberta, Saskatchewan, and Manitoba are conducting projects to look at chaff control and weed populations. In one technique used in Australia, chaff is put in narrow windrows and then burned. Australians have also developed chaff diversion, where chaff is put in a single spot to enable a mulching effect to kill weed seeds.

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"This is much more relevant for controlled traffic farming," said Harker. "They just put the chaff in the wheel track, which is a really poor seed bed for weed seeds."

Lacombe researchers will also be conducting experiments with the Harrington Seed Destructor this fall and are looking for area growers who would like to participate in the trials. While the original Harrington Seed Destructor — a pull-behind mill that pulverizes weed seeds — was very expensive, a new machine (called the Integrated Harrington Seed Destructor) is half the price. Another similar, less expensive, machine is the Seed Terminator, which uses a built-in mill in retrofitted combines to damage weed seeds.

"These new harvest weed seed control options should be looked at seriously," said Harker.

But, he added, there are limits to this approach.

"They are not going to be a panacea or a silver bullet for fixing things, especially for things like wild oats where we get 50 per cent seed loss before harvest," he said.

FORWARDED ON BEHALF OF SHELLEY BARKLEY

Timely information for pest management



There is a new Insect of the Week on the Prairie Pest Monitoring Network blog. Check it out!

Insect of the Week (June 5) - Rove beetles

Posted: 05 Jun 2017 08:05 AM PDT

This week's **Insect of the Week** is the Rove Beetle. This beetle feeds on aphids, mites, eggs and larvae of many other insects present under plant debris, rocks, stones, carrion, dung, and other materials. It is also an important natural enemy of the **pea leaf weevil**. One species of the rove beetle, *Aleochora bilineata*, is an important natural enemy of cabbage, seedcorn, onion and turnip maggots.

Follow the hot new Twitter account @FieldHeroes to learn more about the Natural Enemies that are working for you for FREE to protect your crops!

Bertha armyworm traps go up June 11 and the map goes live June 18 on agriculture.alberta.ca/bugs-pest

You will also find on our web page a handy Youtube video on how to set up those bertha traps, just in case you need a refresher!

Contact bugs.r.us@gov.ab.ca if you are not interested in receiving these updates



Ascochyta Disease Levels on Field Pea Seed and Beneficial Management Practices

Mark Olson, Alberta Agriculture and Forestry

There have been a lot questions by growers about ascochyta disease levels on the seed of field pea. This

article will address some of those concerns.

What is considered a normal or acceptable disease level percentage for ascochyta on field pea

seed?

Alberta Agriculture and Forestry research has shown a 2-3% infection level is common, however, it is dependent on whether the host, environment and disease are present in that particular field and year. The range of percent infection in our field trials has been 0.1-18.5%. Obviously, the closer the infection

level is to zero, the better.

At what level of disease should a grower look for a different seed source?

The literature suggests a 10% cut off, but it really depends on seed availability

in that particular year. In years where seed availability with lower levels of ascochyta is limited, growers have used seed with slightly higher than 10% infection levels with good results, as long as they employ some beneficial management practices.

What are the beneficial management practices to deal with ascochyta on field pea seed?

Applying a seed treatment, as well as increasing seeding rate, will help reduce the effect of ascochyta. Ascochyta on seed reduces emergence (lowers plant stand) as well as results in poor seedling health and vigour. Field pea stands that have less than the 7-8 plants ft2 are not able to compensate through tillers, stooling or increased branching like other crops and low plant stands seldom have high yields. An important point that some growers don't know, is ascochyta on the seed has no effect on the level of foliar (leaf) disease on the crop as this disease's method of spread (spores spread by air, wind and rain) cannot occur because the seed is buried in the ground. However, high levels of foliar ascochyta in field pea will result in a high level percentage on the seed.

Do seed treatments work?

Seed treatment products are highly effective and are registered for control of seed-borne disease. Research scientists have isolated the disease organism from growers' fields. They then place the organism in a peat medium and put it down the seed tube with the seed and based on how well the treatment works in relation to bare seed, the product either gets rejected or registered. As many growers are aware, disease organisms occur in patches and are not distributed uniformly across a field, therefore, assessing seed treatment products for registration in the manner that scientists use is really putting the seed treatment product to the test. Check Alberta Agriculture and Forestry's Blue Book (http://www1.agric.gov.ab.ca/\$Department/deptdocs.nsf/all/agdex32) selector chart for a list of products controlling ascochyta on seed.

Why do some demonstration, field and farmer strip trials and show no

difference between treated and non-treated seed?

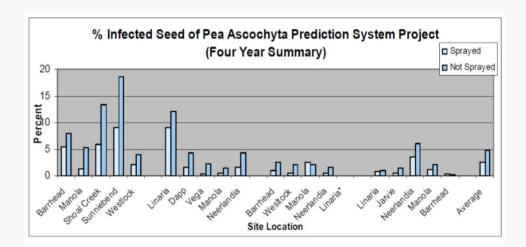
All three components of the disease triangle - the host, the disease and environmental conditions - have to be present for symptoms of any disease to occur. Research on seed treatments is not easy, and a full understanding of how disease works is required. Demonstrations or field trials that are relying the natural presence of the disease in that particular part of the field where the trial is located are flawed because, as indicated earlier, disease does not occur uniformly across a field but in patches. In conducting disease research, scientist inoculate the seed to ensure the disease is present and even this methodology is not always successful in every instance. As well, if there is no history of the host crop in the field or if the environmental conditions (humid, wet and cool) do not present themselves then the disease will not occur.

Are all seed treatment product the same?

There isn't a lot of research on direct to direct seed treatment product comparisons in the research literature. Some of the earlier research suggest the introduction of the active ingredients metalaxyl and fludioxonil in seed treatments increased disease control and overall plant health considerably. Additionally, seed treatment products increase in price as additional active ingredients are added. Multiple active ingredients ensure control of disease organism as organisms may evolve and the chance of resistance to particular products is always of concern. In some instances an insecticide compound (thiamethoxam) has been added to control pea leaf weevil and, therefore, there is added cost. The bottom line is that you get what you pay for.

Which growers are at higher risk for increased levels of Ascochyta on seed?

Those growers that have a long history of field pea on their farm as well as short crop rotations with field pea increase the inoculum load and are at higher risk for higher percent level of disease on the seed versus a first time field pea grower. As well, Alberta Agriculture and Forestry has research to indicate that percent level on infection on the seed is lower when a foliar ascochyta control product (pyraclostrobin) had been used on the crop from which the seed is derived.



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New First Aid and Safety on the Farm program launched

By St. John Ambulance/Ag for Life release

Published: April 4, 2017

News

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Photo: iStock

St. John Ambulance and Ag for Life have launched a joint training initiative to help families who live and work on farms prepare and respond to emergencies.

Each year in Alberta, there are over 18 agricultural-related deaths and hundreds of injuries. Machinery, rollovers, and animal-related events are the predominant causes. Quick use of first aid and CPR can save lives in the event of an emergency.

The inaugural First Aid and Safety on the Farm class was held in Grande Prairie earlier this month and the program will now be launched across the province. The program covers common hazards on farms, potential risks, injury prevention, emergency response procedures, and control measures to reduce hazards.

The Emergency and Standard First Aid components offered are both Alberta OHS-approved courses. The first aid course, together with the Safety on the Farm module, teaches students how to properly respond to farm emergencies and injuries. When completed successfully students will receive two certificates — one for Safety on the Farm and one for First Aid training.

Report Card on the Resolutions

Maureen Vadnais
PROVINCIAL AGRICULTURAL SERVICE BOARD COMMITTEE

Contents

No table of contents entries found.



Introduction

The Provincial Agricultural Service Board (ASB) Committee is pleased to provide ASB members and staff with the Report Card on Government and Non-Government Responses to the 2017 Provincial ASB Resolutions. This document has the *Whereas* and *Therefore Be It Resolved* sections, response, response grade, and comments from the Committee for each resolution that was passed at the 2017 ASB Provincial Conference. The resolutions are also posted on the Alberta Agriculture and Forestry website at: www.agriculture.alberta.ca/asb.

There are four grades that can be assigned to a resolutions response: Accept the Response; Accept in Principle; Incomplete and Unsatisfactory. The quality of the response determines the grade that is assigned to each resolution. A definition of what each grade means is included in the Report Card. This report also summarizes actions undertaken by the Provincial ASB Committee on current and previous resolutions.

The grades assigned by the Committee are intended to provide further direction on advocacy efforts for each resolution. Please contact your Regional Representative on the Committee if you have questions or comments on the grade assigned to a resolution or advocacy efforts.

2017 ASB Provincial Committee Members

Regional Representatives	Alternates
Patrick Gordeyko, Northeast, Chair	David Melenka
Lloyd Giebelhaus, Northwest, Vice Chair	Darrell Hollands
Corey Beck, Peace	Doug Dallyn
Jim Duncan, Central	Phillip Massier
Steve Wikkerink, South	Garry Lentz
Other Representatives	
Randy Taylor, AAMDC	
Elden Kozak, AAAF, Secretary	
Trent Keller, AAAF	
Doug Macaulay, Agriculture and Forestry	
Pam Retzloff, Agriculture and Forestry	
Maureen Vadnais, Executive Assistant	

Definition of Terms

The Provincial ASB Committee has chosen four indicators to grade resolution responses from government and non-government organizations.

Accept the Response

A response that has been accepted is one that addresses the resolution as presented or meets the expectations of the Provincial ASB Committee.

Accept in Principle

A response that has been accepted in principle is one that addresses the resolution in part or contains information that indicates further action is being considered.

Incomplete

A response that is graded as incomplete is one that has not provided enough information or does not completely address the resolution. Follow up is required to solicit the information required for the Provincial ASB Committee to make an informed decision on how to proceed.

Unsatisfactory

A response that is graded as Unsatisfactory is one that does not address the resolution as presented or does not meet the expectations of the Provincial ASB Committee.

Executive Summary

Grading given by the Provincial ASB Committee to responses by government and non-government organizations to resolutions passed at the 2017 Provincial ASB Conference.

Resolution Number	Title	Status	Page
1-17	Vegetation Management on Alberta Provincial Highways		
2-17	Ensuring Competition for Seed and Crop Protection Products		
3-17	Incorporating Agriculture and Agri-Food Education in the Classroom		
E1-17	Carbon Levy Exemption on Natural Gas and Propane for All Recognized Agricultural Production		
E2-17	Agricultural Disaster Policy	DEFEATED	
E3-17	Eradication of Bovine Tuberculosis and Brucellosis Prevalent in Bison Within and Surrounding Wood Buffalo National Park		

2017 RESOLUTIONS

RESOLUTION 1 VEGETATION MANAGEMENT ON ALBERTA PROVINCIAL HIGHWAYS

WHEREAS: The lack of noxious and prohibited noxious weed control is affecting

neighboring landowners, as invasive plants are spreading into their fields;

WHEREAS: Spot spraying vegetation is costlier than blanket spraying vegetation control;

WHEREAS: Landowners adjacent to provincial highways (both two digit and three digit)

are faced with increased costs to their vegetation control programs as a

result of lack of control along the highways;

WHEREAS: Invasive plants cause significant changes to ecosystems resulting in economic

harm to our agricultural and recreational industries. Highway corridors facilitate the spread of invasive plants not just locally, but internationally as

well which impacts our neighbors;

WHEREAS: The most cost-effective strategy against invasive species is preventing them

from establishing rather than relying on a municipality to identify an

infestation and react by issuing a notice. Allowing undesirable plants to grow increases the risk to human health (poisonous plants) and public safety by reducing visibility along road shoulders where wildlife are crossing or grazing;

WHEREAS: Alberta Transportation in the past had the option of signing Service

Agreements with each municipality to do invasive plant control, but that option is no longer available in some districts due to some of the highway

maintenance contracts;

WHEREAS: With 31,000 kilometers of highway in the province the land base in which it is

responsible for weed control within its right-of-way's is regulated by the Weed Control Act which requires attention and sufficient funds to be able to abide

by its own legislation.

THEREFORE BE IT RESOLVED

THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST:

The Government of Alberta delivers a more effective maintenance program for vegetation management (weed control and mowing) along the primary and secondary highways in the province.

FURTHER THEREFORE BE IT RESOLVED

THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST:

The Government of Alberta deliver a more effective vegetation management plan on all primary and secondary highways to control noxious weeds, prohibited noxious weeds and any unsafe vegetation on the full right of way. This plan should include but not be limited to an appropriately timed herbicide application in order to control all legislated weeds and mowing of the full right of way at a time that limits the spread of weed seeds.

FURTHER THEREFORE BE IT RESOLVED THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST:

Alberta Transportation gives the option in all districts of the province to enter into Service Agreements with municipalities for weed control.

Status: Provincial

Response

Alberta Agriculture and Forestry

The Weed Control Act defines the regulation of noxious and prohibited noxious weeds, which includes responsibility for weed control along provincial highways. Alberta Agriculture and Forestry communicates that responsibility to all land managers/owners, including government departments that manage land, to ensure regulated weeds are actively controlled and land managers/owners are in compliance with their legislative requirements.

Agriculture and Forestry understands that the Association of Alberta Agricultural Fieldmen discussed concerns regarding weed control along provincial highways with Alberta Transportation at its September 9, 2016 meeting with the AAAF executive, and Transportation has reviewed their management of weed control along highways.

For further information:

Paul Buryn, Operations Manager, Alberta
 Transportation, paul.buryn@gov.ab.ca or 780-968-4218 (toll-free by dialing 310-0000 first).

Alberta Environment and Parks

Honourable Brian Mason, Minister of Transportation, will address Resolution 1: Vegetation Management on Alberta Provincial Highways in a separate letter, as this topic falls under the purview of his ministry.

Alberta Transportation

Thank you for your February 1, 2017 letter to Minister Mason regarding the Agricultural Service Board's Resolution 1: Vegetation Management on Alberta Provincial Highways.

I value the relationship between the Agricultural Service Board and Alberta Transportation, and I share the Board's wish to collaborate on addressing weed growth in the provincial highway rights-of-way.

In response to stakeholder concerns, Alberta Transportation has restored funding for vegetation control and mowing, starting in spring 2017. Through recent discussions with your association, Alberta Association of Municipal Districts and Counties, and Alberta Transportation, we have worked together to identify a comprehensive and mutually agreeable vegetation management control plan.

In the 2017-18 fiscal year, the department is planning:

- Chemical vegetation control:
 - o All class highways: one full right-of-way spray every four years.
 - o All class highways: one percent of total hectares reactive spraying for prohibited noxious weeds annually and/or localized noxious weed concerns. Mowing may be completed instead of spraying if appropriate.

Mowing:

- o Class 1A highway: one full-width right-of-way cut and one shoulder cut annually.
- o Class 1B highways: one full-width right-of-way cut every four years and one shoulder cut annually.
- o Class 2 and 3 highways: one full-with right-of-way cut every four years and one shoulder cut annually.

In addition to restoring funding for vegetation control and mowing in spring 2017, Alberta Transportation districts will arrange to meet with the respective Agricultural Fieldmen and/or other municipality representatives prior to the growing season to discuss vegetation control plans. The discussion should include the mowing and chemical vegetation control plans and locations of the planned activities; how to manage reactive weed control, including communication between Alberta Transportation and the municipalities; and specific locations where there may be concerns requiring special consideration or that may fall outside the vegetation control guidelines.

Regarding your request for the option of the province entering into service agreements with municipalities for weed control work will be directed through the highway maintenance contractors, with the exception of Special Areas. Work will not be directly contracted with municipalities; however, if the highway maintenance contractor and the municipality are in agreement and approval is granted by Alberta Transportation, the municipality may be able to perform the vegetation management. The chemical vegetation control budget will be provided to Alberta Transportation districts; however, if there is mutual agreement between Alberta Transportation and the Agriculture Fieldmen/municipality, the chemical budget may be used to fund mowing activities.

Should you have any further questions regarding proactive vegetation control along provincial highways, please contact Mr. Paul Buryn, Operations Manager. Mr. Buryn can be reached toll-free at 310-0000, then 780-968-4218, or at paul.buryn@gov.ab.ca.

Grade: Accept in Principle

Comments:

The Committee graded this resolution as "Accept in Principle" as they will be monitoring the implementation of the plan proposed by Transportation over the next four years. The Committee feels that all government departments need to be doing a better job of complying with the Alberta Weed Control Act. Agriculture and Food need to ensure that

other departments, such as Transportation, are complying with the Weed Control Act in addition to educating them. The Committee strongly encourages Agriculture and Food to develop a strategy for ensuring the Weed Control Act is being complied with by other government departments.

The Committee would like to thank the Association of Alberta Agricultural Fieldmen (AAAF) and Nicole Kimmel, Alberta Agriculture and Forestry Weed Specialist, in particular for the work they have done to educate and work with Transportation ministry staff to develop this plan. AAAF has worked extensively with Transportation and Agriculture and Forestry over the past year to develop an integrated vegetation management plan for Alberta's primary and secondary highways. This plan encourages timely and appropriate vegetation management along Transportation right of ways to ensure compliance with the Weed Control Act and management of unsafe vegetation.

The Committee appreciates the support that the new Deputy Minister, Barry Day, expressed for this plan during their meeting in January 2017 and will continue to meet with Transportation as the plan is implemented to assess its effectiveness. The Committee will continue to work with AAAF, AAMDC and Transportation to monitor and adjust the plan as necessary.

This resolution is related to Resolution 1-16: Proactive Vegetation Management on Alberta Provincial Highways.

RESOLUTION 2 ENSURING COMPETITION FOR SEED AND CROP PROTECTION PRODUCTS

WHEREAS: Global Agribusiness Bayer has offered to purchase another Global

Agribusiness, Monsanto;

WHEREAS: A compilation of agriculture statistics indicates that in 2010, 46% of Canola

grown in Canada was Liberty Link (Bayer) 47% was Roundup Ready

(Monsanto), 6% was Clearfield (BASF). Based on those statistics, seed and the related pesticides sales on approximately 93% of Canola grown in Canada

could conceivably belong to a merged Bayer/Monsanto company;

WHEREAS: Competition encourages research, more choices on seed and crop

protection products and lower prices, which is better for primary producers as

well as consumers;

WHEREAS: Section 90.1 (1) (a) of the Competition Act states: If, on application by the

Commissioner, the Tribunal finds that an agreement or arrangement — whether existing or proposed — between persons two or more of whom are competitors prevents or lessens, or is likely to prevent or lessen, competition

substantially in a market, the Tribunal may make an order

(a) Prohibiting any person — whether or not a party to the agreement or arrangement — from doing anything under the agreement or arrangement.

THEREFORE BE IT RESOLVED

THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST

That Alberta Agriculture and Forestry, Agriculture and Agri-Food Canada and the Administrative Tribunals Support Service of Canada work cooperatively to ensure a merger between Bayer and Monsanto is prevented.

Status: Provincial, Federal

Response

Alberta Agriculture and Forestry

The purchase of Monsanto by Bayer has elicited widespread concern about market consolidation in the canola and crop protection sectors. Section 90.1 of the Government of Canada *Competition Act* is intended to ensure that competition is not substantially prevented or lessened as a result of mergers or acquisitions, and is aimed at preventing anti-competitive practices in the marketplace.

The federal Competition Bureau has primary jurisdiction over mergers and acquisitions, as it is responsible for the administration and enforcement of the

Competition Act. The Competition Bureau usually consults widely with government and industry stakeholders when it conducts its reviews of mergers and acquisitions.

With respect to the Bayer Monsanto merger, Alberta Agriculture and Forestry shares concerns similar to those expressed by the Agriculture Service Board and other industry stakeholders. In October 2016, Alberta Agriculture and Forestry met with Competition Bureau representatives and discussed the potential impact of the Bayer Monsanto merger. Representing industry stakeholders, the Canadian Canola Growers Association has also met with Competition Bureau representatives and is currently preparing a submission to the Competition Bureau, with a focus on the potential impact of the merger on canola producers.

For further information:

- Darren Chase, Executive Director, Policy, Strategy and Intergovernmental Affairs, darren.chase@gov.ab.ca or 780-417-3338.
- Competition Bureau can: www.competitionbureau.gc.ca/eic/site/cb-bc.nsf.eng/home

Administrative Tribunals Support Service of Canada

I acknowledge receipt of your letter addressed to the Chairperson of the Competition Tribunal dated February 1, 2017 indicating that the ASB Provincial Committee is requesting a response from the Competition Tribunal and/or the Administrative Tribunals Support Service of Canada for your resolution (i.e. <u>Resolution 2: Ensuring the Competition for Seed and Crop Competition Products.</u>)

In addition, on page 2 of your letter, as part of your Resolution 2, it states:

THEREFORE BE IT RESOLVED

THAT ALBERTA'S AGRICULUTURAL SERVICE BOARDS REQUEST that Alberta Agriculture and Forestry, Agriculture and Agri-Food Canada and the Administrative Tribunals Support Service of Canada work cooperatively to ensure a merger between Bayer and Monsanto is prevented.

It is important to provide you with some background information as it relates to: (1) the Competition Tribunal; (2) the Administrative Tribunals Support Service of Canada (the "ATSSC"); and (3) the Commissioner of Competition.

First, the Competition Tribunal is a specialized economic tribunal that adjudicates cases that arise under the civil provisions of the Competition Act (the "Act") and which are predominantly initiated through a filing of Notice of Application by the Commissioner of Competition.

To be clear, the Competition Tribunal is strictly an adjudicative body that operates independently and at arm's length from the Government of Canada and its departments, including the Commissioner of Competition. This also applies equally to provincial governments and their respective departments.

Secondly, the ATSSC is the federal department responsible for providing support services to eleven federal administrative tribunals, including the Competition

Tribunal. As such, ATSSC-staff provide legal and registry support service to the Competition Tribunal but have no adjudicative or investigatory functions.

Lastly, the Commissioner of Competition is responsible for the administration and enforcement of the Act and carries out such responsibilities and related investigations with the support of the staff at the Competition Bureau.

Therefore, neither the Competition Tribunal nor the ATSSC can be part of the initiative contemplated in your resolution.

Since the Commissioner of Competition is the primary investigator of complaints under the Act, it may be worthwhile for you and your organization to raise your concerns with the Commissioner of Competition using the following link:

http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/frm-eng/GH%C3%89T-7SEN3J

Agriculture and Agri-Food Canada

With respect to Resolution 2 regarding the Bayer-Monsanto merger, under the *Competition Act*, mergers are reviewed by the Competition Bureau to determine whether they will likely result in a substantial lessening or prevention of competition. The Competition Bureau is an independent agency responsible for the administration and enforcement of the *Competition Act*.

Generally speaking, as part of its merger review process, the Competition Bureau may contact affected parties, relevant agencies/departments, industry associations, suppliers, etc. to determine the impact of the potential merger. The Competition Bureau also regularly co-operates with other international enforcement partners in order to increase the effectiveness and efficiencies of merger reviews that have international implications. This collaboration also has benefits for the merging parties, creating certainty over legal treatment and expediency of the reviews in numerous jurisdictions.

Given the role of the Competition Bureau and its responsibilities under the Competition Act, Agriculture and Agri-Food Canada is not in a position to comment on its review of the proposed Bayer-Monsanto merger. For more information on the Competition Bureau and its review process, please refer to its website, at www.competitionbureau.qc.ca.

Grade: Incomplete

Comments

This resolution was graded as "Incomplete" as the Committee feels it should also be sent to the Competition Bureau. The resolution in its' entirety has been forwarded to the Competition Bureau through the Competition Bureau's website listed above.

RESOLUTION 3 INCORPORATING AGRICULTURE AND AGRI-FOOD EDUCATION IN THE CLASSROOM

WHEREAS: Alberta Education is currently reviewing the Alberta school curriculum;

WHEREAS: Education about agriculture is limited within the current school curriculum;

WHEREAS: The Classroom Agricultural Program is only able to spend one hour with grade

4 students;

WHEREAS: Consumer interest of how agriculture production is achieved, and food is

produced is increasing;

WHEREAS: Less than 2% of the population have a direct role in primary agriculture

production, people have a less direct experience with growing their own

food or participating in the agriculture industry;

WHEREAS: The availability of incorrect or incomplete information on the agriculture and

agri-food industry is increasing;

WHEREAS: Consumer purchases can be influenced by the amount and quality of

agriculture and agri-food awareness and education they have received.

THEREFORE BE IT RESOLVED

THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST

that the Minister of Education, during the pending review of the Alberta School Curriculum, include agriculture and agri-food and its importance to Canadians as part of the new curriculum at elementary, junior high and high school levels.

FURTHER THEREFORE BE IT RESOLVED

THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST

That Alberta Education and Alberta Agriculture and Forestry increase the amount of time spent in the school curriculum to discuss food and agriculture.

FURTHER THEREFORE BE IT RESOLVED

THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST

That Alberta Education and Alberta Agriculture and Forestry create a panel of Agricultural and Nutrition experts to create the curriculum that will be taught in Alberta classrooms.

Status: Provincial

Response

Alberta Agriculture and Forestry

There are currently several entry points for agriculture to be integrated into the Alberta school curriculum. Alberta offers the Green Certificate program for high school students, whereby students can gain industry certification while earning high

school credits in a variety of agriculture areas including cow/calf operations, equine, pig, greenhouse, and field crops. This program is unique in Canada and serves as a model for other provinces like Saskatchewan.

Through the Career and Technology stream of courses, about 30 different agriculture courses are offered, six of which can be taken through distance education. This is also unique in Canada. These courses are not part of the curriculum development process currently underway and are not slated for significant changes.

In core subjects, there are also currently several entry-points for agriculture to be integrated in the curriculum. Grade 2 Science has a unit on small flying and crawling creatures, where teaches may choose to focus on composting and the role worms play in soil health. Grade 4 has a strong focus on both plants in science, and agriculture as part of Alberta's culture and history. Alberta's Grade 7 Science unit, Plants for Food and Fibre, is another excellent entry point to teach about modern agriculture. Finally, Health in all grades provides opportunities to discuss healthy eating, and many teachers integrate school gardening and discussions about agriculture into health. In high school, agriculture can be used as an example to support topics like globalization, genetics, and climate change.

One of the best ways to ensure agriculture is brought to life for students in the existing and future curriculum is for external organizations to offer high quality curricular-linked agriculture programs and resources that meet teacher needs. Classroom Agriculture Program is one such program. There are also many other programs and resources available from groups like Agriculture for Life, Inside Education, Agriculture in the Classroom, The Reynolds Museum, Stony Plain Multicultural Heritage Centre, Northlands, Calgary Stampede, and the many commodity groups. Industry support for these programs is essential for them to continue and to expand.

Agriculture Service Boards can review Alberta Education's opportunities for the public to engage in the curriculum development process. As the new curriculum is rolled out in classrooms, Alberta Agriculture and Forestry's agriculture education consultant is able to work with industry groups to create and adapt programs to ensure they align with the new curriculum.

For further information:

- Karen Carle, Agriculture Education Consultant, <u>karen.carle@gov.ab.ca</u> or 403-340-5339
- Alberta Education, https://education.alberta.ca/curriculum-development

Alberta Education

Thank you for your February 1, 2017 letter regarding the resolution made by the Agricultural Service Board Provincial Committee to incorporate agriculture and agrifood education in future curriculum.

Our government is committed to ensuring that all students are provided with an education that enriches their lives and prepares them for success. Alberta students deserve the best education we can deliver, and we will strive to ensure our education system is one we can be proud of.

Agriculture is a vitally important industry in Alberta, and there are many opportunities for students to learn about agriculture in our current Science and Social Studies programs of study. Students may also learn about agriculture through optional programming in Career and Technology Foundations, Career and Technology Studies, and Green Certificate and Dual Credit programs.

As you know, our government is looking ahead to the future and working to ensure that provincial curriculum continues to give all students the best possible start in life and enables them to meet the demands of living in the 21st century. We are working to create new Kindergarten to Grade 12 (K-12) provincial curriculum in six subject areas over the next six years: Language Arts (English, French, and François), Mathematics, Social Studies, Sciences, Arts and Wellness Education. This will allow us to build better connections across subjects.

A number of other education stakeholders are involved in the process, including the Alberta Teachers' Association, the Alberta School Boards Association, the College of Alberta School Superintendents, the Association of Alberta Deans of Education and the Alberta School Councils' Association. We are also seeking input throughout the development process from a broad range of Albertans with an interest in K-12 education, including teachers, post-secondary institution professors and instructors, parents, and representatives from business and industry.

Curriculum Working Groups have been established to develop draft provincial curriculum content for Alberta Education's consideration. School authorities and post-secondary institutions in Alberta were invited to nominate staff with expertise within subjects and across grades. These groups are currently in the process of drafting a subject introduction and a scope and sequence in each subject area.

As part of the many opportunities for Albertans to provide input into our provincial curriculum development work, Alberta Education posted on its website an opportunity for non-profit organizations to make 15-minute presentations to one or more working groups of their choice. We are pleased that 39 non-profit organizations responded to this opportunity and made presentations on topics of interest related to future curriculum content development.

Opportunities for future involvement will continue to be posted on the Alberta Education website at www.education.alberta.ca/curriculum-development. Should you wish to meet directly with Education ministry staff to discuss opportunities for agriculture and agri-food in future curriculum, you may contact Caroline Nixon, Senior Manager, K-12 Sciences and Biology, by phone at 780-422-3219 (toll-free in Alberta by first dialing 310-0000) or by email at caroline.nixon@gov.ab.ca.

Thank you for writing to express your interest in the curriculum development process. I encourage you and your board members to participate in the opportunities being made available for all Albertans to contribute to this important work.

Grade: Incomplete

Comments

The Committee graded this resolution as "Incomplete" as the responses didn't answer the questions posed regarding amount of time dedicated to agriculture in the curriculum or setting up a panel of agricultural and nutrition experts to consult on the curriculum.

The review of the Alberta curriculum is ongoing and anticipated to conclude in 2022. The Committee feels that it needs to get additional information, such as the amount of time currently dedicated to agriculture versus other industries, and meet with Alberta Education so they can better advocate on this resolution.

The Committee is planning to work with Karen Carle, Agriculture Education Consultant with Agriculture and Forestry, and Luree Williamson from Ag for Life to continue to move forward on this resolution. Ms. Carle and Ms. Williamson met with the Committee in March 2017 and helped the Committee gain a better understanding of how the curriculum works and opportunities for incorporating more agriculture into the curriculum. The Committee feels that working with these organizations will provide greater synergy to meet the requests of this resolution as Ms. Carle and Ms. Williamson have already been working with Alberta Education to integrate agriculture into the curriculum. The Committee will request their assistance to develop an expert panel to review and create agriculture resources for teachers for the Alberta curriculum.

EMERGENT RESOLUTION 1 CARBON LEVY EXEMPTION ON NATURAL GAS AND PROPANE FOR ALL RECOGNIZED AGRICULTURAL PRODUCTION

WHEREAS: the Climate Leadership Implementation Act effective January 1, 2017 states

that every recipient shall pay a carbon levy on purchases of natural gas and

propane;

WHEREAS: As purchasers, farmers cannot pass the additional cost of a carbon tax on to

consumers or the international market;

WHEREAS: Grain dryers that have natural gas meters and separate propane tanks for

drying can be easily accounted for in their use by the retailer;

WHEREAS: Farmers who don't dry their own grain use the grain elevators who offer grain

drying as a service and should not be penalized with a carbon levy;

WHEREAS: Programs are in place through the Climate Leadership Plan to help farm

operations reduce their emissions through efficiency upgrades, but they do

not apply to grain dryers;

WHEREAS: Farmers are exempt on marked fuel by way of the carbon levy exemption

certificate.

THEREFORE BE IT RESOLVED

THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST

that the Government of Alberta provide farmers and grain elevators with a carbon levy exemption certificate on natural gas and propane for all recognized agricultural production.

Status: Provincial

Response

Alberta Environment and Parks

Farmers must currently pay the appropriate carbon levy rate for any purchases of natural gas or propane which are not covered by any of the exemptions listed in Part 1, Division 1, Section 8(4) or Part 1, Division 3, Section 15(1) of Bill 20 Climate Leadership Implementation Act, respectively.

There are several existing Government of Alberta initiatives and programs offered through Energy Efficiency Albert (www.efficiencyalberta.ca) and Agriculture and Forestry (www.agric.gov.ab.ca) which would apply to grain drying, in addition to those noted in the resolution's background information:

 Through the Alberta Farm Fuel Benefit program, eligible farmers are fully exempt from the provincial fuel tax (not the carbon levy) on propane used for farming purposes (See

www1.agric.gov.ab.ca/general/progserv.nsf/All/pgmsrv9).

- Farmers can receive a rebate for propane used for grain drying under the Remote Area Heating Allowance, even if the dryer is situated in a gas franchise area. (See www1.agric.gov.ab.ca/general/progserv.nsf.all/pgmsrv294). The rebate is 25 per cent of the propane cost.
- Farmers who demonstrate strong environmental stewardship can sell carbon offsets to large emitters (See www1.agric.gov.ab.ca/\$department/deptdocs/nsf/all/cl11618).
- Improvements to grain drying operations are eligible under the Business, Not-Profit and Institutional Energy Savings Program (see www.efficiency alberta.ca/business-non-profit-and institutional) if they involve high-efficiency retrofits to lighting, heating, cooling or hot water systems.
- The reduction in the small business tax rate from 3 to 2 per cent is applicable to grain drying operations.

Grade: Accept the Response

Comments

A grade of "Accept the Response" was assigned to this resolution as the Committee felt that it was answered in its' entirety.

The response outlined that there are several programs available to producers and small business to offset the costs of the carbon levy. Producers are encouraged to look into these programs.

EMERGENT RESOLUTION 2 AGRICULTURAL DISASTER POLICY

DEFEATED AT THE 2017 ASB PROVINCIAL CONFERENCE

WHEREAS: Counties, municipalities, and the Province declared an Agricultural Disaster

after the North West Regional Agricultural Service Board Conference,

therefore this resolution was not developed;

WHEREAS: When a natural disaster with extreme moisture* or drought conditions occurs,

it has been proven that the impact can be as significant as other more

dramatic disasters;**

WHEREAS: Although crop insurance provided by Agriculture Financial Services

Corporation (AFSC) does cover short falls in crop production it does not cover

the extreme situation of total crop loss to weather conditions;

WHEREAS: Other natural disaster occurrences have had disaster relief funding from the

Provincial and the Federal government;

THEREFORE BE IT RESOLVED

THAT ALBERTA'S AGRICULTURAL SERVICE BOARD REQUEST

That Alberta Agriculture and Forestry create an agricultural disaster policy that will allocate funding from provincial and federal governments to be accessed in addition to the existing programs by producers in the event of an agricultural disaster.

EMERGENT RESOLUTION 3

ERADICATION OF BOVINE TUBERCULOSIS AND BRUCELLOSIS PREVALENT IN BISON WITHIN AND SURROUNDING WOOD BUFFALO NATIONAL PARK

WHEREAS: Nationally, wood bison are listed as Threatened under Schedule 1 of the

Federal Species at Risk Act, and designated as of Special Concern by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). In Alberta, only free-roaming wood bison that occur within Alberta's Wood Bison Protection Area (West of Highway 35, North of the Chinchaga River and Keg River Metis Settlement) are considered endangered wildlife; and as such are recognized and protected under Alberta's Wildlife Act;

recognized and protected under Alberta 3 Wildline Net,

WHEREAS: The inability of Alberta to formally protect all other free-roaming wood bison

(East of Highway 35, North, Northeast and Southeast of Fort Vermilion) under the Provincial Wildlife Act leaves; these animals vulnerable to year-round unregulated hunting, successful hunters at risk of harvesting wildlife with Zoonotic diseases, and other wildlife and livestock at risk of contracting the

diseases;

WHEREAS: The recently released draft Federal Recovery Strategy for the Wood Bison

(2016) states the greatest threat to wood bison recovery is the prevalence of

bovine tuberculosis and brucellosis;

WHEREAS: At the end of October 2016, at least thirty ranches in Southeastern Alberta

were put under quarantine after the discovery of a single case of bovine tuberculosis. Thus leaving producers unable to sell their animals and fearful

that their income for the year may evaporate;

WHEREAS: On January 5, 2017 the Canadian Food Inspection Agency (CFIA) released a

statement confirming that 50 premises are currently under quarantine and movement controls, affecting approximately 26,000 cattle, with an additional

10,000 cattle set to be tested and destroyed at 18 of those properties;

WHEREAS: Mackenzie County is located within direct proximity of Wood Buffalo National

Park; thus the risk of diseased free-roaming wood bison transmitting bovine tuberculosis and brucellosis to domestic livestock is of immediate concern to

all local beef producers;

WHEREAS: The Government of Alberta (GOA) continues an annual regulated hunt of the

disease-free Hay-Zama local population; designed to contain this disease-free herd to the Wood Bison Protection Area, with the goal of maintaining a

population size of 400 - 600 animals;

WHEREAS: A population survey conducted in February 2016, found 625 wood bison

belonging to the Hay-Zama herd; sufficient enough to continue the hunt and increase license numbers. As such, the GOA has issued 250 Aboriginal licenses and 125 non-Aboriginal licenses provincially for the 2016/17 Hay-Zama wood

bison hunting season;

WHEREAS: Any wood bison sighted travelling West of Wood Buffalo National Park,

towards the Wood Bison Protection Area; is presumed diseased and therefore destroyed as a precautionary measure, in order to maintain the disease-free

status of Alberta's only verified disease-free local population;

WHEREAS: The Alberta First Nations Food Security Strategy, released January 2015, found

that efforts to increase northern Aboriginal food security; fundamentally include the restoration and increase of sovereignty over local food systems, improved access to local food, including hunting of culturally traditional

wildlife such as buffalo;

WHEREAS: In 1990, a Federal Environment Assessment Panel recommended completely

eradicating all bison from Wood Buffalo National Park, followed by restocking

with disease-free animals;

WHEREAS: In 2016, Environment and Climate Change Canada acknowledge that, at

present, the only effective tool to successfully eradicate the threat of bovine

tuberculosis and brucellosis from within and surrounding Wood Buffalo

National Park is by depopulation;

THEREFORE BE IT RESOLVED

THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST

that Alberta Agriculture and Forestry, and Parks Canada; to support the depopulation of diseased wood bison as the only effective tool to successfully eradicate the threat of bovine tuberculosis and brucellosis from within and surrounding Wood Buffalo National Park.

AND FURTHER BE IT RESOLVED

THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS

urge Alberta Agriculture and Forestry, and Parks Canada; to develop an effective measureable plan to successfully eradicate all diseased bison from within and surrounding Wood Buffalo National Park. In order to prevent further disease outbreaks Province-wide; that would inevitably have adverse effects for the National, Provincial and local domestic cattle and beef industries.

Status: Provincial, Federal

Response

Alberta Agriculture and Forestry

This resolution has identified several key factors that highlight the importance of this issue and the need to eliminate the risk of these diseases spreading from this population. While there is no known link between disease in this northern bison population and the recent detection in Southern Alberta, the current TB investigation in cattle in Southern Alberta has reminded us of the time and resources required for investigations into livestock cases.

We have recently seen progress around Manitoba's Riding Mountain National Park, which may provide valuable insight for future direction with Woof Buffalo National Park. With that said, Manitoba is faced with a much lower prevalence of disease in

the wild population, but also a much smaller buffer, and therefore, greater interaction between wildlife and livestock.

Alberta Agriculture and Forestry sees this as an important issue that requires input from a broad range of stakeholders with varying perspectives. In the meantime, there are ongoing surveillance efforts in the area to closely monitor the situation and any potential risks for livestock.

For further information:

• Dr. Keith Lehman, Chief Provincial Veterinarian, <u>keith.lehman@gov.ab.ca</u> or 780-427-3448.

Alberta Environment and Parks

Alberta is working with the federal government and the Northwest Territories to develop a strategy to eliminate the risk of disease transmission from these bison. This strategy will be developed through a collaborative, consensus-based approach, engaging with indigenous communities and relevant stakeholders. The draft terms of reference for the committee are currently being reviewed by the Canadian Wildlife Directors Committee.

As noted in the resolution's description, the Canadian Food Inspection Agency conducted a risk assessment of the potential transmission of bovine tuberculosis and brucellosis from Wood Buffalo National Park bison to the cattle industry. This assessment concluded that the risk was insignificant, and as such, the prospect of implementing a costly and socially unsupported eradication program is less likely.

Agriculture and Agri-Food Canada

With respect to Resolution 3, I understand the concern about diseased bison in and around Wood Buffalo National Park. As you know, achieving a long-term solution to this issue will be difficult and will require a significant commitment by all stakeholders, including Alberta Agriculture and Forestry, Alberta Environment and Parks, and Parks Canada. The Canadian Food Inspection Agency (CFIA) remains supportive of activities that will mitigate the risk posed by a wildlife reservoir of bovine tuberculosis and brucellosis. However, in light of the low degree of risk to livestock, the CFIA's involvement is limited to supporting other lead federal, provincial, and territorial partners by providing veterinary advice/expertise and diagnostic laboratory testing, as required.

Environment and Climate Change Canada

Thank you for your correspondence of February 1, 2017, regarding the Agricultural Service Board Provincial Committee's recent resolution with respect to the eradication of bovine tuberculosis and brucellosis prevalent in bison within and surrounding Wood Buffalo National Park of Canada.

I understand your concern with regard to the potential for transmission of bovine tuberculosis and brucellosis from herds in and around the Park to disease-free wood bison and cattle herds in neighbouring agricultural areas, particularly given the

recent detection of bovine tuberculosis in cattle in southern Alberta and Saskatchewan.

While depopulation of diseased bison herds has been proposed as a solution in the past, it has never received widespread support from all stakeholders and governments. Finding a permanent solution to this issue remains a challenge due to the need to recover wood bison—a threatened species with major cultural significance to Indigenous Peoples and Canadians in general—as well as the need to maintain the ecological integrity of its habitat in Wood Buffalo National Park, while reducing the risk of disease transmission to neighbouring disease-free bison and cattle. I am encouraged to see ongoing co-operation between the federal government and the provinces of Alberta and the Northwest Territories as they explore a full range of options for the development of a long-term solution to the issue.

I anticipate that recent undertakings, including a review of the effectiveness of the buffer zone between Wood Buffalo National Park and the Mackenzie Bison Sanctuary, as well as work by the Canadian Food Inspection Agency to quantify the risk of disease transmission, will help to inform this process in the management of the issue. One key remaining priority is to ensure the early and full engagement of concerned Indigenous groups in the context of federal and provincial commitments to a renewed relationship with Indigenous Peoples.

For further discussion on this matter, please contact Mr. Jonah Mitchell, Field Unit Superintendent, Southwest Northwest Territories, Parks Canada, at Jonah.mitchell@pc.gc.ca or by telephone at 867-872-7943, and Mr. Gilles Seutin, Chief Ecosystem Scientist, Parks Canada, at gilles.seutin@pc.gc.ca or by telephone at 819-420-9269.

Grade: Unsatisfactory

Comments

The Committee felt that the responses were focused on this issue from the perspective of the buffalo and did not take into account the impact that these diseases could have on the cattle industry.

The Committee will be seeking further information from Parks Canada about the strategy mentioned in the response.

2017 EXPIRING RESOLUTIONS

The Provincial Rules of Procedure state under Section 3(10) that the ASB Provincial Committee will advocate for resolutions for a period of five years. Any expiring resolutions that an ASB wishes to remain active must be brought forward for approval at the next ASB Provincial Conference.

The following resolutions will expire in 2017:

Resolution Number	Resolution Name	Grade
1-13	Weed Control in Provincial	Unsatisfactory
	Waterways	
2-13	Inclusion of all Invasive	Accept in Principle
	Hawkweed Species as	
	Prohibited Noxious under	
	the Alberta Weed Control	
	Act and Regulation	
4-13	Wild Boar Eradication	Accept in Principle
	Initiative	
5-13	Agricultural Pests Act	Unsatisfactory
	Review/Invasive Species Act	
6-13	Composition of Soil	Accept in Principle
	Conservation Act Appeal	
	Committee	

Updates on Expiring Resolutions

UPDATE OF PREVIOUS YEARS' RESOLUTIONS

Section 3(10) of the Provincial Rules of Procedures states that follow up on resolutions from the previous two years will be reported on in the annual Report Card on the Resolutions. Only those resolutions with grades of "Accept in Principle", "Incomplete", or "Unsatisfactory" are included in this report card. Resolutions from previous years may be included here that are relates to an issue that the Committee is working on.

A listing of all resolutions with grading can be found on the provincial ASB program website at: www.agriculture.alberta.ca/asb.





Keep watch for this potential new invader

Noxious Weeds: Puncturevine

By Association of Alberta Agricultural Fieldmen

Published: June 15, 2017

Crops

Be the first to comment



Puncturevine, which is easily recognizable, has been found in B.C. and would find Alberta to its liking. *Photo: City of Grande Prairie*

So far uncommon to Alberta, puncturevine has all the makings of a potential headache to you and me, alike.

What started as an annual herb in southern Europe has started spreading into Canada (in British Columbia and Ontario). Like most other weeds, this plant prefers areas of disturbed, bare ground and grows as a summer annual in colder climates — which makes it a perfect invader for Alberta.

This low-lying, dense mat-like plant grows very deep taproots. While the above-ground leaves of the plant can be killed by frost, yearly resprouting can occur from these deep roots. Seeds of puncturevine can germinate when spring temperatures and moisture are plentiful. Its greenish-red stems covered in hairs with a yellow, five-petal flower make this weed easy to identify.

The primary control method is early detection and preventing seed production and dissemination. Seeds, which are hard and have two or three sharp spines can puncture feet (humans and livestock) and bicycle tires. They can also bury deep into the soles of footware, only to release

later and increase its spread. Seed production is quick, so control efforts are needed through the growing season.

Currently no selective herbicides are registered for puncturevine. As this plant is toxic to animals, this invasive plant should never be considered as forage. Repeated, shallow cultivation before seed production can be the most effective means of control.

For more information on this or any invasive plant, contact your local <u>Agricultural Fieldman</u> or the Alberta Invasive Species Council.

Aimee Delaney is a Conservation assistant for Red Deer County.

Alberta Crop Report



Crop Conditions as of June 6, 2017 (Abbreviated Report)

A week of favourable weather has advanced seeding to 91% completed, up 12 percentage points for the week but well behind the 5 year average of 99.5%. See Table #1. Seeding intentions are changing due to the late date as producers shift acres to barley away from spring wheat, canola and field peas. Crop emergence demonstrates the lateness of the year with only 66% of crops emerged versus last year at 91%. Emergence varies from 96% in the South region to 33% in the Peace.

The harvest of over wintered crops is estimated at 97% completed, leaving approximately 35-50,000 acres yet to be handled. Harvest is virtually complete in the Central region, 95-96% complete in the North East and North West and 98% done in the Peace. It is estimated that 35% of the spring threshed cereals to be of good feed quality, 45% have marginal feed quality and the remaining 20% having little or no feed value. 63% of the canola is grading 3 CAN or better with 31% grading sample due to damage.

Surface soil moisture ratings improved marginally on the week. Excessive moisture ratings continue to decline in all regions and now stand at 13.5% of the province. **See Table #2.** The poor/fair rating was unchanged at 9% while the good/excellent rating rose 1 percentage point to 77%.

Hay/pasture ratings were little changed on the week at 1% poor; 9% fair; 69% good; 21% excellent.

Table 1: Alberta Seeding Progress as of June 6, 2017 (Abbreviated)

	% Seeded						
	South	Central	N East	N West	Peace	Average	
Spr. Wheat	99.8%	99.9%	95.8%	95.6%	72.4%	94.7%	
Barley	99.9%	95.4%	67.7%	75.1%	58.0%	87.2%	
Oats	100%	94.6%	64.2%	76.1%	59.0%	75.4%	
Canola	99.8%	99.9%	89.4%	91.6%	66.3%	89.3%	
Dry Peas	100%	100%	100%	98.8%	99.2%	99.8%	
Average	99.9%	98.7%	89.1%	90.0%	70.6%	91.4%	
Last Week	98.2%	88.8%	65.4%	67.5%	56.6%	79.0%	
5 Year Ave	99.9%	99.5%	99.1%	99.0%	99.8%	99.5%	

Source: AF/AFSC Crop Reporting Survey

Table 2: Surface Soil Moisture Ratings as of June 6, 2017

	Poor	Fair	Good	Excellent	Excessive
South	2.5%	14.3%	59.3%	23.9%	0%
Central	0%	11.9%	63.3%	22.0%	2.9%
N East	0%	0%	14.2%	56.9%	28.8%
N West	0%	0%	3.6%	56.8%	39.6%
Peace	1.2%	11.9%	38.8%	37.3%	10.8%
Alberta	0.9%	8.3%	40.2%	37.0%	13.5%
Last Week	1.2%	8.1%	39.6%	36.2%	14.9%
Last Year	1.9%	14.2%	46.2%	34.6%	3.1%

Source: AF/AFSC Crop Reporting Survey

Tage
79/6
2.9/6
4.9/6
3.39/6
3.9/6
3.9/6
5.59/6

Growing Season
Precipitation
Accumulations
Relative to
Long Term Normal
April 01, 2017 to
June 05, 2017

Condition

Frequency
In a conce in 50 years
once in 25 to 50 years
once in 25 to 50 years
once in 12 to 25 years
once in 25 to 50 years
once in 25 to 50 years
once in 51 years
once in 25 to 50 years
once in 51 years
once in 52 to 50 years
once in 51 years
once in 52 years
once in 50 years
once

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Our thanks to Alberta Agricultural Fieldmen, staff of AFSC and the Alberta Ag-Info Centre for their partnership and contribution to the Alberta Crop Reporting Program.

The precipitation map is compiled by Alberta Agriculture and Forestry, Environmental Stewardship Branch, Engineering and Climate Services Section..







REGIONAL ASSESSMENTS:

The 2017 Alberta Crop Report Series continues to provide summaries for the following five regions:

Region One: Southern (Strathmore, Lethbridge, Medicine Hat, Foremost)

- Warm temperatures in mid to upper 20's. Light rain in amounts of 10 25 mm fell over the weekend tempering soil dryness concerns for the time being.
- Seeding has been virtually complete for more than a week with a small amount of clean up ongoing.
- Crops are 96% emerged, up from 80% emerged last week. Cereal crops are in tillering stages.
- Surface moisture rated at 83% good/excellent, unchanged from last week.
- Small reduction in hay/pasture ratings to 85% of region rated good or excellent (89% last week).

Region Two: Central (Rimbey, Airdrie, Coronation, Oyen)

- Warm weather with temperatures in low to mid 20's. Showers fell in central and west portions of region.
 10 20 mm of rain in the east portion.
- Seeding nearing completion with a small amount of barley and oats yet to go in, principally in the west.
- Crops are 74% emerged versus 51% last week. Cereals average 5-6 leaf stage.
- Excessive surface moisture declined to below 3% of the region. Area rated good or excellent rose 1-2 points to 85%.
- Hay/pasture ratings declined marginally to 86% good/excellent from 87% last week.

Region Three: North East (Smoky Lake, Vermilion, Camrose, Provost)

- Warm weather with temperatures in low to mid 20's. Light showers caused only short delays.
- Seeding estimated at 89% complete with principally barley and oats remaining. Seeding intentions are being affected by the lateness of the season.
- Emergence @ 57% compared to 22% last week. Cereals averaging 4 leaf stage.
- Improvement to surface moisture ratings with excessive declining 3-4 points to 29%. Remainder of region rated good or excellent.
- Hay/pasture ratings unchanged at 99% good or excellent.

Region Four: North West (Barrhead, Edmonton, Leduc, Drayton Valley, Athabasca)

- Warm temperatures in low to mid 20's. 10-20 mm of rain fell entering the weekend slowing progress.
- Seeding estimated @ 90% completed with principally barley and oats remaining. Seeding intentions are being changed. Emergence at 47% with cereals averaging 2 leaf growth stage.
- Excessive surface soil moisture declined 2 percentage points to 41% of the region. No area in the region is rated poor or fair at this time.
- Hay/pasture ratings jumped 10 points on the week to 95% good or excellent.

Region Five: Peace River (Fairview, Falher, Grande Prairie, Valleyview)

- Warm temperatures in low to mid 20's with light showers.
- 71% of region has been seeded as seeding progress continues to be affected by slow soil drydown. Seeding intentions are being affected by the lateness of the season.
- Only 33% of crops have emerged with cereals averaging emerging to 2 leaf stage.
- Surface soil moisture ratings saw excessive moisture ratings decline 2 percentage points to 11% of the region. The percentage rated poor/fair rose 1 percentage point to 13% due to the ongoing dryness in the extreme northern portion of the region which has received less than 1.5 inches of precipitation since May 1st.
- Hay/pasture ratings improved to 86% good/excellent (up 1 percentage point).

Agriculture Financial Services Corporation Actuarial, Analytics & Forecasting Unit Lacombe, Alberta June 9, 2017 James Wright, Risk Analyst E-mail: james.wright@afsc.ca Phone: 403-782-8336

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The 2017 Alberta crop reporting series is available on the Internet at: http://www1.agric.gov.ab.ca/\$department/deptdocs.nsf/all/sdd4191

Don't be fooled by this weed's pretty flower

Noxious weeds: Field scabious

By Association of Alberta Agricultural Fieldmen

Published: May 17, 2017

Crops

Be the first to comment



The flower of field scabious is pretty but the weed can invade hayfields and other grassy areas and be widely dispersed via baled forage. *Photo: Jeremy Ross*

Field scabious was introduced as an ornamental from Europe and is now taking over roadsides and pastures. It can be found throughout central Alberta and has the ability to invade even undisturbed plant communities, such as hayfields. Once established it is very difficult to control.

Flowers can be a purple- to blue-coloured clustered head,

resembling a chive flower. Hairy leaves form a rosette around the base and are deeply lobed. Field scabious can grow up to 1.5 metres tall, but can be very difficult to see from a distance, as it is so thin and spindly. This plant prefers nutrient-rich, moderately dry soils and develops a deep taproot that will compete with native grasses for resources.

ADVERTISEMENT

The goal for control of this weed is to stop seed production. However, be careful when hand pulling because this plant will cause skin irritation and itching, so it is best to wear long sleeves and gloves. Field scabious is listed as noxious under the Alberta Weed Control Act and therefore must be controlled, meaning its growth or spread must be prevented.

For more information on this or any invasive plant, contact your local <u>Agricultural Fieldman</u> or the <u>Alberta Invasive Species Council</u>.

Glyphosate labels to change, Health Canada announces

CBC News Posted: Apr 28, 2017 9:01 PM ET Last Updated: Apr 28, 2017 9:01 PM ET



Glyphosate is the most widely used herbicide in Canada. (Charles Platiau/Reuters)

Health Canada says the potential risk to human health and the environment from pesticides containing glyphosate are acceptable, if used as directed in updated labels.

The regulator published its **re-evaluation on glyphosate**, an herbicide sold under brand names such as Roundup and Vision, on Friday.

The decision follows a standard review to check registered pesticides meet current health and environmental safety standards.

Health Canada said glyphosate continues to be an important herbicide in Canadian agriculture and is the most widely used herbicide in the country.

By April 2019, manufacturers will be required to update commercial labels for products containing glyphosate to include statements such as:

- Re-entry into the sprayed areas should be restricted to 12 hours after its application in agricultural areas.
- The product is to be applied only when the potential to spread to areas of human activity, such as houses, cottages, schools and recreational areas, is minimal.
- Instructions for buffer zones to protect areas beyond those targeted as well as aquatic habitats.

Glyphosate is sprayed on crops such as canola, soy, field corn and wheat.

Nearly a third of food samples in CFIA testing contain glyphosate residues

Earlier this month, the Canadian Food Inspection Agency said it detected traces of herbicide in nearly 30 per cent of food products it tested.

Overall, the food regulator found 98.7 per cent of the samples were found to be compliant with the Health Canada's Maximum Residue Limits (MRLs) — the level at which they aren't a concern for human health.

Of the remaining 1.3 per cent, Health Canada determined that none posed a health and safety risk, an official said.

Outside of agriculture, glyphosate is used in the forestry industry, as well as by homeowners in gardens and patios.



Canada

Yes you can now find this publication on the web! You can find it on the Prairie Pest Monitoring Network Blog here with downloadable links.

http://prairiepestmonitoring.blogspot.ca/2017/04/new-cutworm-identification-and.html

It will be uploaded onto the publications.gc.ca website with in the next few weeks.

Printed copies are not available at this time...

Glyphosate clears Health Canada reevaluation

No major changes made to herbicide's registrations in Canada

By Staff

Published: April 28, 2017

Crops



(CaseIH.com)

Crop protection companies selling glyphosate have two years to make minor changes to parts of their product labels, as the 43-year-old herbicide formally clears Health Canada's re-evaluation process.

The re-evaluation, launched in late 2009 in a standard federal practice for registered pesticides in Canada, has ruled that products containing glyphosate — when used following the new label directions — are "not a concern to human health and the environment."

The federal health department's <u>final re-evaluation decision</u>, released Friday, sticks close to the decision it first proposed and released for public comment in April 2015.

The proposed new label updates — which marketers of commercial products containing glyphosate must include on labels "no later than 24 months" from Friday — are meant to "help provide additional protection to humans and the environment."

The new labels must include a statement that people's re-entry into glyphosate-sprayed farm fields should be restricted to 12 hours after application.

A statement must also be added to labels that the product is to be applied "only when the potential to spread to areas of human activity, such as houses, cottages, schools and recreational areas, is minimal."

The new labels must also include "instructions for spray buffer zones to protect non-targeted areas and aquatic habitats from unintended exposure," plus "precautionary statements to reduce the potential for runoff of glyphosate into aquatic areas."

Health Canada's "overall finding" from its re-examination of glyphosate found the product is "not genotoxic and is unlikely to pose a human cancer risk."

Dietary exposure, via food or drinking water, associated with the use of glyphosate is "not expected to pose a risk of concern to human health," the department added.

Occupational and residential risks linked with use of glyphosate are also "not of concern, provided that updated label instructions are followed."

Spray buffer zones, however, "are necessary to mitigate potential risks to non-target species" such as vegetation near treated areas, aquatic invertebrates and fish, due to spray drift.

Used according to revised label directions, glyphosate products "are not expected to pose risks of concern to the environment," the department added.

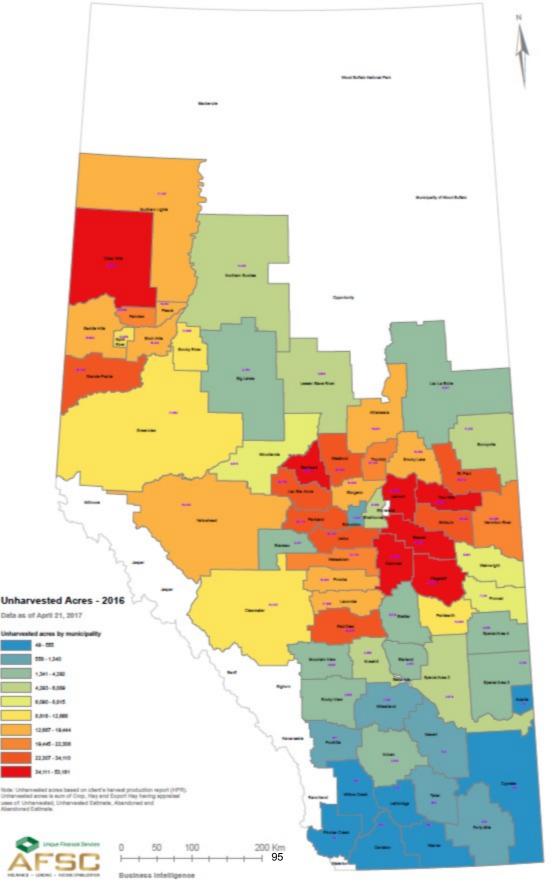
All currently registered glyphosate uses, Health Canada said, "have value for weed control in agriculture and non-agricultural land management."

Glyphosate, which crop chemical and seed firm Monsanto first brought to market under the Roundup brand in 1974, has run up against new scrutiny from a human health angle in the past couple of years.

The International Agency for Research on Cancer (IARC), an arm of the World Health Organization, announced in a 2015 report that it would move glyphosate into its Group 2A—"probably carcinogenic to humans."

Health Canada's re-evaluation, while not related to the IARC report, described the agency's reclassification of glyphosate as "a hazard classification and not a health risk assessment.

"This means that the level of human exposure, which determines the actual risk, was not taken into account by IARC." — AGCanada.com Network



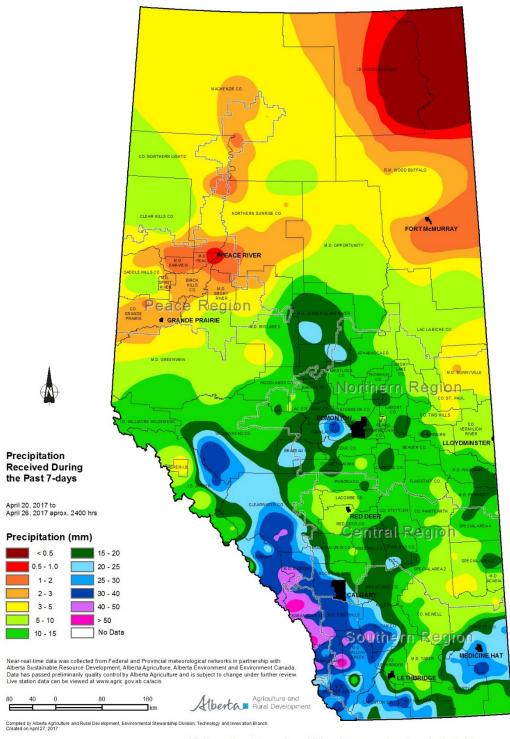
FORWARDED ON BEHALF OF DALE CHRAPKO

Synopsis

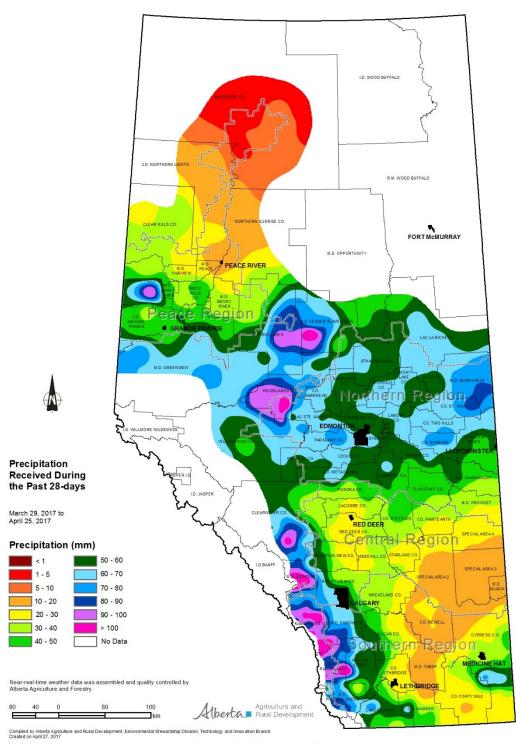
Over the past week wet weather has continued to dominate over much of the province, with many areas experiencing a mix of rain and snow. During this time, south of the Peace River Region, most agricultural lands have received at least 10-15 mm of moisture, with upwards of 20-40 mm recorded throughout much of the west-half of the Southern Region, in and around the Medicine Hat area and all along the foothills and nearby plains, extending up as far north as Edson (see map 1). In contrast the Peace Region was dryer, with most areas reporting less than 5 mm.

After a relatively dry winter, March 28th marked the beginning of a much wetter trend, particularly for areas lying north of Wetaskiwin, ranging up as far as the southern-half of the Peace River Region. Here 28-day precipitation totals range from 50 mm to over 100 mm (see map 2). It is estimated that for some areas, accumulations this great occur on average less than once in 50-years (see map 3). Much of this moisture fell as snow, with cooler than normal conditions prevailing, along with poor drying conditions.

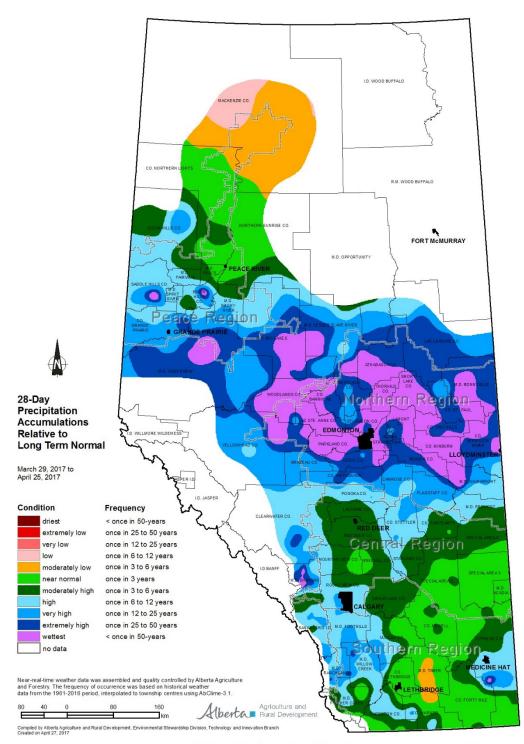
Across many parts of the province, an unusually wet fall accompanied by this springs above normal precipitation, has resulted in soil moisture conditions that are well above normal for this time of year, with the exception on the northern tip of the Peace Region and a small area centered on the M.D of Taber, were conditions remain relatively dry (see map 4). Of significant note is that soil moisture reserves across a large area north of Wetaskiwin, stretching well up into the central Peace Region are estimated to be at least this wet, less than once in 50-years Here, warm dry weather is needed in the coming weeks to allow seeding to progress in a timely fashion.



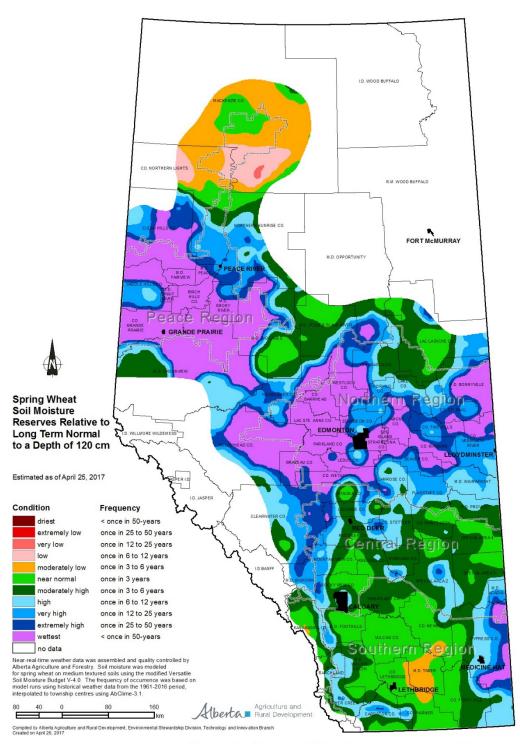
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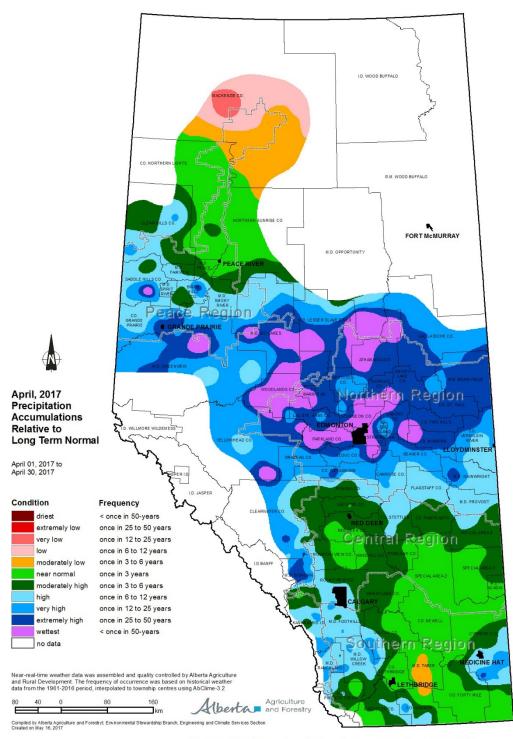


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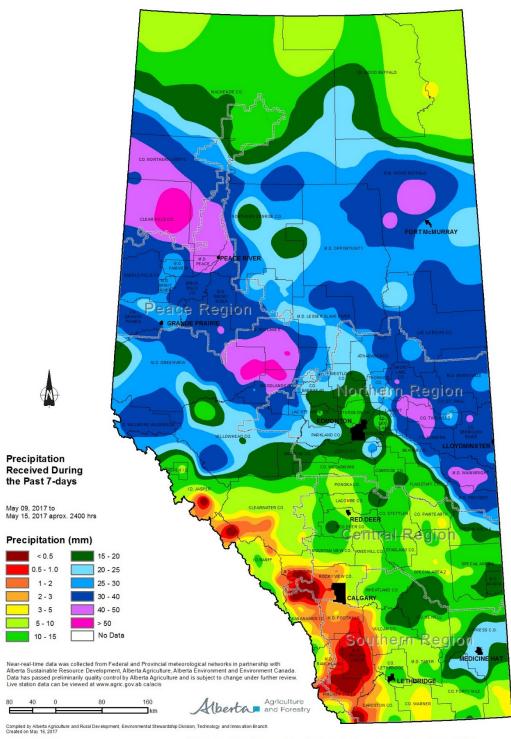
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Synopsis:

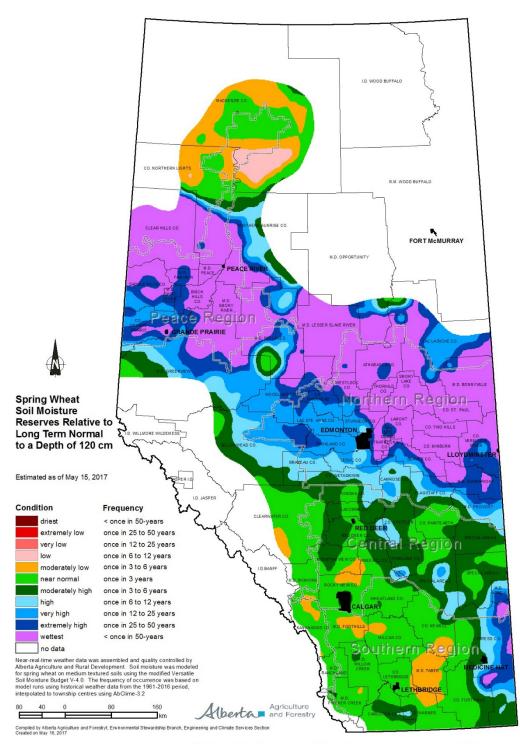
May started out quite warm and relatively dry, after an unusually cool and wet April prevailed across most of the province (see map 1). However, towards the end of last week another major system swept across the province bringing more moisture (10-50 mm) to many of the provinces agricultural lands (see map 2). A very large area running from Provost in the east, all the way up to Manning in the Peace country received more than 30 mm of moisture. As a result, soil moisture reserves have increased notably, with about 70% of the agricultural lands across this wide area seeing reserves this high on average less than once in 50-years (see map 3). Fortunately areas across the northern Peace Region that have been experiencing below average precipitation for several years, received upwards of 15 mm. While this is not a significant amount of moisture, it should help to get pastures going and add some moisture to the seed bed.



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Alberta Crop Report



Crop Conditions as of May 30, 2017

Seeding progress in the province has reached 79% complete, up 22 percentage points on the week, but well behind the 5 year average of 97%. See Table #1. A weather front early in the reporting period brought strong winds and varying amounts of rain to the North West and North East regions, reaching into the Central. The event was followed by warm sunny days which provided producers with the opportunity to get back into the fields and continue operations with minimal delays. Seeding progress is virtually completed in the South, 7 days behind in the Central but 10-14 days delayed in the North East and North West and approaching 14 days behind in the Peace region. Crop stage is well behind normal with only 43% of crops having emerged compared to last year at 78%. Estimates indicate that 5 - 10% of the cropland in the North East, North West and Peace could potentially remain unseeded this year due to being too wet to access and seed.

Surface soil moisture ratings improved slightly as the percentage of cropland rated excessive declined by nearly 3 percentage points to 15% of the province. The area rated good/excellent was little changed at 75%. **See Table #2**.

Hay/pasture ratings are very good throughout the entire province with no region rating conditions below 85% good or excellent. Overall, the province is rated <1% poor; 9% fair; 68% good; 22% excellent.

Table 1: Alberta Seeding Progress as of May 30, 2017

	% Seeded						
	South	Central	N East	N West	Peace	Average	
Spr. Wheat	98.3%	90.3%	78.8%	75.7%	62.2%	83.9%	
Dur. Wheat	98.2%	97.5%				98.1%	
Barley	97.6%	82.9%	33.8%	51.8%	46.2%	72.5%	
Oats	98.1%	76.3%	26.1%	51.1%	45.9%	51.7%	
Canola	97.7%	89.6%	61.2%	66.4%	53.2%	72.4%	
Dry Peas	99.6%	99.7%	95.8%	90.2%	64.8%	92.5%	
Mustard	98.7%	96.7%				98.1%	
Flax	97.1%	79.7%	65.0%			89.4%	
Potatoes	100%	66.7%	50.0%	80.0%		96.5%	
Dry Beans	97.4%					97.4%	
Chickpeas	98.8%	100%				98.8%	
Lentils	99.8%	100%				99.8%	
Corn	100%	78.3%				89.1%	
Flax	97.1%	79.7%	65.0%			89.4%	
Alberta	98.2%	88.8%	65.4%	67.5%	56.6%	79.0%	
Last Week	88.3%	66.6%	38.9%	35.3%	36.8%	56.7%	
5 Year Ave.	99.0%	97.2%	94.4%	96.1%	97.0%	96.9%	

Source: AF/AFSC Crop Reporting Survey

Table 2: Surface Soil Moisture Ratings as of May 30, 2017

	Poor	Fair	Good	Excellent	Excessive
South	2.9%	13.6%	59.4%	24.0%	0%
Central	1.3%	11.9%	59.4%	24.3%	3.3%
N East	0%	0%	14.2%	53.5%	32.3%
N West	0%	0%	6.4%	52.1%	41.4%
Peace	0.8%	11.2%	38.1%	37.3%	12.7%
Alberta	1.2%	8.1%	39.6%	36.2%	14.9%
Last Week	0.9%	6.2%	34.5%	40.9%	17.4%
Last Year	1.9%	15.0%	39.2%	37.3%	6.7%

Source: AF/AFSC Crop Reporting Survey

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Our thanks to Alberta Agricultural Fieldmen, staff of AFSC and the Alberta Ag-Info Centre for their partnership and contribution to the Alberta Crop Reporting Program. The precipitation map is compiled by Alberta Agriculture and Forestry, Environmental Stewardship Branch, Engineering and Climate Services Section.







REGIONAL ASSESSMENTS:

The 2017 Alberta Crop Report Series continues to provide summaries for the following five regions:

Region One: Southern (Strathmore, Lethbridge, Medicine Hat, Foremost)

- Seeding 98% completed; Emergence @ 80%; spring cereals average 8 leaf stage, winter cereals approaching flag leaf stage, 40% of canola in 1-3 leaf stage, 62% of field peas in 1-3 node stage with 18% in 4-6 nodes.
- No significant pest infestation issues except gophers.
- 42% of spraying completed. 1st cut irrigated haying starting in Medicine Hat, Warner areas.
- Hay/Pasture ratings: <1% poor; 10% fair; 79% good; 10% excellent.

Region Two: Central (Rimbey, Airdrie, Coronation, Oyen)

- Seeding 89% completed. 90-95% complete in east and central areas, 75-80% done in the western section.
- 51% of crops emerged. Spring cereals average 2 leaf stage, winter cereals in early stem elongation stage, 15% of the canola in 1-3 leaf stage, 38% of field peas in 1-3 nodes.
- No significant pest issues to date except gophers.
- Hay/pasture ratings: 1% poor; 12% fair; 72% good; 15% excellent.
- 97% of overwintered crops have been removed (~4,400 acres remain to harvest)

Region Three: North East (Smoky Lake, Vermilion, Camrose, Provost)

- Seeding has advanced to 65% complete versus 5 year average of 94%. Most effort going into seeding of spring wheat, field peas and canola. Barley & oat seedings trailing badly.
- 22% emergence. Spring cereals average 2 leaf stage, winter cereals entering stem elongation stage, canola is emerging, 32% of field peas in 1-3 node stage.
- Flea beetles, cutworms and wireworms deemed at over threshold levels for damage in 2% of region.
- Hay/pasture ratings: 0% poor; <1% fair; 60% good; 39% excellent.
- 92% of overwintered crop have been harvested (~41,800 acres remain)

Region Four: North West (Barrhead, Edmonton, Leduc, Drayton Valley, Athabasca)

- Seeding at 67% completed versus 5 year average of 96%.
- 18% emergence reflecting the delayed seeding. Spring cereals averaging 1-2 leaf stage, 5% of canola in 1-3 leaf stage, 8% of field peas at 1-3 nodes.
- Flea beetles rated over threshold for damage in 4% of the region.
- Hay/pasture ratings: 0% poor; 15% fair; 60% good; 25% excellent.
- 89.5% of overwintered crop harvested (~24,600 acres remain)

Region Five: Peace River (Fairview, Falher, Grande Prairie, Valleyview)

- Seeding across the region continuing to be affected by slowness of the saturated soils to dry down. Seeding at 57% complete, advancing only 20 percentage points on the week. 5 year average is 97%.
- 13% of crops have emerged with most crops in very early growth stages. Spring cereals average emerging. Canola has 5% in the 1-3 leaf stage, field peas have 5% in the 1-3 node stage.
- Flea beetles and lygus bugs are deemed over threshold for damage in 1% of the region.
- Hay/pasture crops rated: 0% poor; 15% fair; 59% good; 26% excellent.
- 90% of overwintered crops have been removed (~52,000 acres remain).

Agriculture Financial Services Corporation Actuarial, Analytics & Forecasting Unit Lacombe, Alberta June 2, 2017 James Wright, Risk Analyst E-mail: james.wright@afsc.ca Phone: 403-782-8336

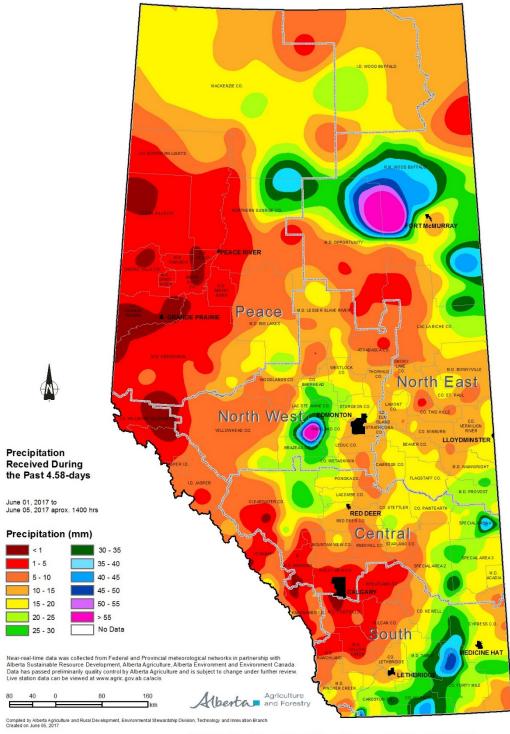
FORWARDED ON BEHALF OF DALE CHRAPKO

Synopsis:

Towards the end of last week wet weather rolled into the province again, bringing variable amounts of rain across the province. (see map 1)

- Most of Alberta's agricultural areas received at least 10 mm of rain, with the exception of the south-half of the Peace Region, and lands in and around a large area centered on the City Calgary, where less than 5 mm of rain rain was recorded.
- Wet areas west of Edmonton, lying between Athabasca and Rocky Mountain House received at least 15 mm of rainfall, with over 64 mm being recorded at the Tomahawk AEDM station.
- Wet areas across the North East saw variable amounts of rain, ranging from 15-20 mm in the south to less than 10 mm in central areas.
- Much needed moisture (upwards of 15 mm) fell across most lands east and south of Lethbridge, with more than 45 mm recorded at the Bow Island North IMCIN station.
- Along the eastern parts of the province from Lloydminster and down through the Special Areas between 15 to 25 mm was recorded, with localized areas seeing nearly 40 mm.

A tornado was spotted near Three Hills at about 5:00 pm on Friday. To see the story, go to: http://www.cbc.ca/news/canada/calgary/i-ve-never-seen-anything-like-that-before-tornado-spotted-near-three-hills-alta-1.4144590



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Synopsis:

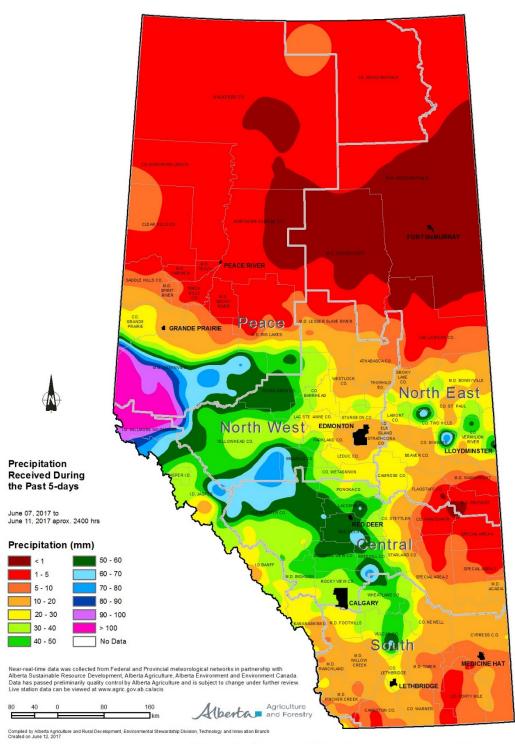
Over the weekend, wet weather prevailed once again, with most of the provinces agricultural areas between Grande Prairie and the USA border receiving at least 10 mm of rain (see map 1). Lands west of a line between Lethbridge and Edmonton saw well over 20 to 30 mm, trending up as high as 60 mm or more along a wide band running from about Red Deer to well north of Edson. Additionally some isolated areas across the North East saw some heavy rains as too, with some stations reporting well over 60 mm of rain accumulating in only a few hours.

Across most of the north-half of the province, over the past several weeks, multiple rainfall events have, kept soil moisture reserves to well above normal (see map 2). In fact, both the North West and North East have large areas that are estimated to have soil moisture reserves this high, on average, less than once in 50-years. A general drying trend is needed through these areas so that field access is not hindered by wet soils.

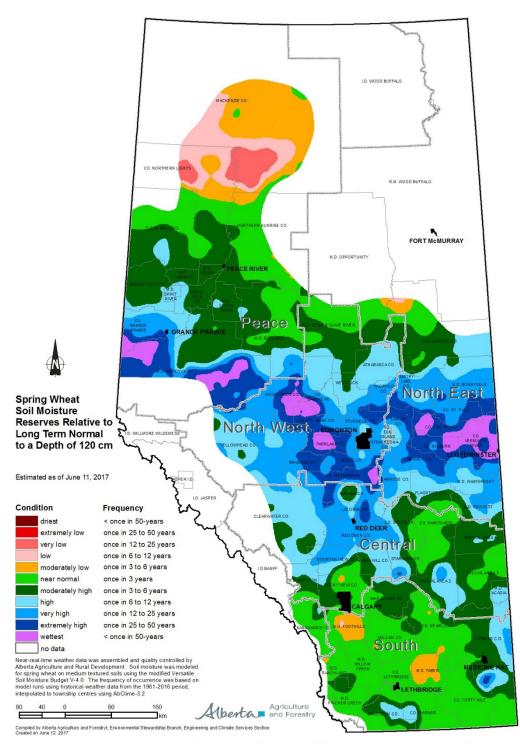
Since the start of the Growing season, precipitation has been extremely variable ranging from less than 40 mm across the northern Peace region, to well over 200 mm along the foothills and in and around the Swan Hills (see map 3). Areas that have received over 180 mm include the extreme southern Peace, many lands west of Highway 2, and large areas north of the Yellowhead Highway between Edmonton and Lloydminster. In general, those areas that have received 140 mm or more since the start of the growing season would benefit from warm, dry weather over the next few weeks. In contrast, most areas north of the town of Peace River and throughout much of the eastern parts of the Central and South regions, will benefit greatly from additional rains.

Discussions with AF's Fire weather meteorologists (special thanks to James Schofield)

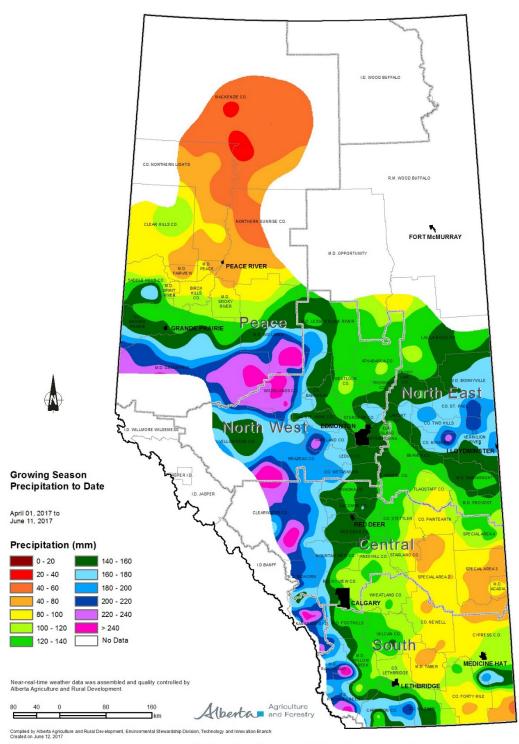
Starting tomorrow (Tuesday June 12th) an upper low will move through the northern part of Montana, bringing with it another round of wet weather, which will affect most of the Province. Across the south, some areas may see upwards of 50 mm of rain. The central areas may see upwards of 30 mm of rain in some locals. Throughout the North West and North East, total accumulations will be less, but enough to further wet the surface. Across the Peace scattered showers may be plentiful, with some areas expected to see accumulations of up to 20 mm. Looking further out, the weather trends we have seen over the past several weeks are expected to continue for at least the next 10-days or so, as conditions are not yet favorable for the development of a stable warm and dry weather pattern.



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Plant 2017: It's all about making the best of a bad situation

It was never going to be good, but crop specialists say this seeding season may not be as bad as feared

By Jeff Melchior

Published: April 19, 2017

Crops, Weather

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For many, this seeding season will be the most stressful they have ever encountered. *Photo: File* To say that last year's harvest season in Alberta was unusual would be putting it mildly.

The exceptionally wet fall resulted in 967,569 unharvested acres reported to Agricultural Financial Services Corporation (AFSC) this past winter, representing millions of dollars in seed and inputs that have yet to be recouped.

So the big question this spring has been: What now?

The two most important things are to not make any rash decisions and double-check on crop insurance requirements, said Harry Brook, crop specialist with Alberta Agriculture and Forestry.

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"You don't want to do something only to find your claim's been denied because you did this, this or this," he said. "You need to be very clear with crop insurance as to what you're planning to do and find out if it will affect your coverage."

Also, do not assume anything about the quality of your unharvested crops — they often come through winter surprisingly well.

"Don't write it off," said Brook. "Once you've got settled with crop insurance, I'd strongly recommend getting a representative sample and testing it.

"People have harvested in February during warm breaks and were surprised that the quality of the crop that was coming off was not garbage. It may be a No. 2."

Reports of canola crushers not accepting spring-harvested canola are discouraging but, again, don't give up hope, he said.

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"In 2008 there was quite a bit of canola that went through the winter. Some of it went No. 1. It depends on the individual situation. It may not be all doom and gloom. Don't just plow it under thinking, 'Oh, it's garbage.' Or, God forbid, 'burn it.'"

Buyers won't refuse spring-harvested crops if the quality is good, he added.

"If it's No. 1 canola, whether it's seeded late or early it doesn't matter to the buyer."

Huge losses

The financial impact of last year's incomplete harvest is coming into focus and it is significant. As of early March, AFSC had assessed 1,708 claims covering 616,412 unharvested acres and had issued \$29,543,920 in payouts up to that point.

The costs of putting in a crop add up quickly. Provincial agriculture officials estimated the cost of putting in a feed barley crop in 2016 ranged from \$176 to \$233 per acre depending on the soil zone while canola production costs were pegged from \$230 to \$323 per acre.

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The full financial picture, which also includes finding a home for a flood of poor-quality feed grain, won't be known for months but it will be "weighing pretty heavy" on many producers, said Mark Cutts, a provincial crop specialist in Stettler.

"Most farmers have been saying they've either never had to deal with a situation like this or, if they have, it's been nowhere near this scale," he said. "Some producers have as high as two-thirds of their crop still out."

Both he and Brook say only consider burning once all other options have been exhausted.

"If you can't do anything else with it and you don't want to plow it down, which at least recycles the nutrients, use burning as your very last-ditch effort," Brook said. "It's not something I would recommend because it's so destructive to the organic matter. It's such a waste."

Late seeding

Late seeding will require producers to choose a late-season variety if possible, said Brook.

"All they can do is pick the shortest-season variety possible and accept the fact they've limited their yield potential," he said. "Normally the rule of thumb is that if you seed it early you maximize yield, so seeding late you tend to give up some of the yield potential.

"The thing with later seeding, especially with canola or with the cereals, is the crop is maturing when there is declining daylight. It's pushing the envelope."

Not surprisingly, the success of late seeding largely comes down to the weather, said Brook. "You need to have a good summer with lots of heat and lots of light to push it along. Sometimes if it's a drier-than-normal summer, which we haven't had for a while, it would tend to speed up maturity. Otherwise it's not quite mature in September when we start getting cold periods and frost. It's going to be more susceptible to green seed in canola and in cereals because they're not quite mature yet."

However, late seeding has its advantages.

"You should be able to avoid any late-frost damage (in spring), so that's a plus. The soil should be warmer so it should emerge fairly quickly."

However, the risk of fusarium head blight is higher this year. Although this has not appeared to have affected producers' ability to get non-infected seed for the growing season, that does not mean fusarium won't be a potential risk as the growing season progresses, said Brook.

"When it comes to disease it's all about weather," he said. "If we continue on the way we have in the past few years with a lot of moisture and humidity, fusarium is going to continue to grow and become a bigger and bigger problem. "The last few summers we've had significantly higher humidity than we normally do. If it decides to change this year that will probably have the biggest effect on fusarium and other diseases."



Pre-emergence Herbicides are a Proactive Approach for Weed Management (5/11/17)

North Dakota State University Rick Zollinger and Tom Peters

URL Link: https://www.ag.ndsu.edu/cpr/weeds/preemergence-herbicides-are-a-proactive-approach-for-weed-management-5-11-17

Agriculturalists frequently advocate for use of pre-emergent herbicides. You heard state Extension Specialists recommend this in presentations during winter meetings and you have read it in trade magazines while you relax at home. Now it is time to put what you have heard and read into action. However, you are not so sure anymore, for some reason. The following evidence is intended to encourage you to apply herbicides pre-emergence.

Pre-emergence Herbicides are a Proactive Approach for Weed Management

Argument one, there is no rain in the forecast. Answer, it is true, residual soil – applied herbicides must be activated by precipitation to effectively control

weeds and factors such as temperature, sunlight, and soil type influence herbicide behavior in soils. However, herbicides can lay on the surface for an extended period and remain effective. Most soil-applied herbicides used by farmers today have a medium or low vapor pressure meaning they generally will not volatilize (evaporate) during warm and dry conditions. Second, these herbicides are bound to soil particles and organic matter (adsorption) and will not move provided the soil does not blow.

Daryl Ritchison, Interim Director of the North Dakota Agricultural Weather Network (NDAWN) summarized climate data from Fargo from 1881 to 2014 and found there was at least 0.25 inches of precipitation on an average once every 10 days in May and once every 7 days in June. Research conducted at the University of Arkansas indicated herbicides remained effective after lying on the soil surface for 14 to 21 days before activating precipitation. They stated the challenge in dry conditions is not degradation of herbicides prior to precipitation, but adequate moisture for weeds to germinate and inadequate precipitation for herbicide activation.

Argument two, I need to finish planting to maximize yield potential. Answer, weeds cost your crop water, nutrients, and yield. Pre-emergence herbicides increase yield potential by preventing or suppressing early weed competition and reducing weed species mixtures, which can increase the simplicity and effectiveness of post-emergence herbicides. Finally, pre-emergence herbicides results in a narrow distribution of weed sizes and improves consistency of post-emergence weed control.

Pre-emergence herbicides fit in a planned weed management strategy. They often have a unique site of action (SOA) that compliment post-emergence herbicides and reduce the onset of weed resistance. Finally, pre-emergence

herbicides protect from the unknown; weather conditions that may not permit the timely application of post-emergence herbicides.

The solar power math is starting to add up

A steep drop in solar prices is giving a new meaning to 'green' power — and giving Alberta farmers a way to cut energy costs



By Jennifer Blair FOLLOW

Reporter

Published: April 24, 2017

News

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Cattle grazer Steve Kenyon and wife Amber Kenyon have gone almost completely off-grid with a solar system purchased on the online classified site Kijiji. *Photo: Supplied*

Cory Nelson isn't what you might call a 'tree hugger.' But the Grassy Lake-area farmer is a businessman, and to him, solar energy just makes good financial sense.

"We view it as an investment," said Nelson, who grows a variety of crops under irrigation on his southern Alberta farm.

"Our best math said it was going to take around 15 years to pay back. After that, we think we'll probably get another 20 or 25 years of benefit from it. At that time, we think we'll be making pretty decent money on that investment.

"If I buy a piece of land, it's typically going to take a long time to pay it back as well. We don't mind viewing things in the long term."

Nelson was looking for ways to stabilize his irrigation pumping costs last year, and solar panels seemed like "a novel idea." Last spring, he started the process of installing solar panels on two pieces of his land — one system with a capacity of 92 kilowatts and the other about 45 kilowatts.

"The one site is built for the equivalent of watering two quarters of land and then the bigger one is based on watering four quarters of land," said Nelson.

The Enmax program Nelson operates under requires him to run a "net-zero system," where he produces enough power to offset the power he uses at the sites to run his pivot and his pump. This type of 'grid-tied system' — an on-grid solar energy system that connects to an existing power grid — allows Nelson to use as much power as he needs in the summer while refilling the 'bank' in the winter.

"In the summer when I'm using power, I'll be using power from the grid and it will be slightly supplemented. I'd be getting two-thirds of my power from the grid on a given day and producing one-third," he said. "In the winter, I'll slowly whittle away at that bill."

(The efficiency of solar systems actually increases when the temperature drops.)

The other financial factor is that Nelson no longer has to worry about a hike in electricity rates.

"If the price of power goes up 10 or 20 years from now, it doesn't affect me. I'm producing my own power."

Growing interest

Those long-term cost savings have sparked a surge of interest in solar panels among Alberta farmers, said Rob Harlan, executive director of the Solar Energy Society of Alberta.

"A lot of the growth is being driven by pure economics, and we don't think that momentum is going to change too much," said Harlan.

Compared to other forms of energy in the province, solar power generation is still "minuscule" but growing, said Harlan, who spoke at a Foothills Forage and Grazing Association workshop in mid-March.

"In the last three years, the installed capacity in Alberta has pretty much increased by 100 per cent per year, and we really anticipate that that growth is going to continue even steeper."

Right now, there are about 1,800 grid-tied solar systems in Alberta generating almost 20 million kilowatt hours of energy a year. (It's impossible to know how many off-grid systems there are.) The goal is to have 10,000 systems installed by 2020 — a jump from about 17 megawatts of generating capacity to around 100 megawatts.



Southern Alberta grain farmer Cory Nelson was looking for a way to manage his irrigation costs when he installed his solar energy system.photo: Supplied

"The biggest factor is the cost per watt of solar modules themselves. In 1977, the cost per watt was US\$76. In 2015, it was US\$0.54 per watt," said Harlan.

"That trajectory continues to drop. It's all about economy of scale. The larger the market gets, the more efficient it is to produce these things."

But make no mistake — solar energy systems still come with a hefty price tag. Nelson likens the price of his system to that of a quarter section of dryland in his area.

"It's expensive. You've got to come up with the money in the first place," said Nelson.

"There was a little bit of funding from the government, but it's fairly minimal."

While producers can access Growing Forward 2 funding from the government of Alberta, they should expect to spend around \$3 a watt for a roof-mounted system and \$3.50 a watt for a ground-mounted one.

"If it's a 10-kilowatt system, a roof mount is \$30,000 and a ground mount is \$35,000," said Harlan.

"As systems get bigger, the costs drop. If they're really small, the price per watt might increase."

Finding deals

But 'turnkey system' costs have become "competitive," and producers can expect to see a return on their investment as early as nine years, depending on site conditions, degradation, utility price changes, government support, and other factors.

"That's why it takes patience with these things. The investment really comes in over time," said Harlan.

"Once the system is amortized, the savings can be quite good."

And there are some deals out there, if you know where to look. Rancher Steve Kenyon has gone almost completely off-grid for around \$10,000 by scouring Kijiji for sales. (His system, which includes batteries, would have cost \$15,000 to \$20,000 new, he said.)

"For us, it basically came down to cost," said the Busby-area custom grazer. "We're trying to lower our overall living costs. We got tired of the big mortgage and all the bills."

Kenyon first dipped his toes into using solar energy "years ago" with solar watering systems for his cattle, but after selling their house, the Kenyon family decided to take their operation completely off-grid.

"To get power in was \$27,000, so we decided to go with solar," said Kenyon. "We bought a bunch of used solar systems and put them all together.

"It's not all brand-new equipment by any means, but we've put together solar panels and batteries off Kijiji, and we got an inverter (which turns solar energy into usable energy) from a company that's been helping us."

Kenyon would "jump on" any solar equipment he found on Kijiji, and once he had amassed a variety of panels, he worked with a consultant to design a system that would work for his needs

— 15 wall panels at 140 watts each. After that, he installed the system himself with some buddies.

"I basically mounted all the panels on the side of the shop. We didn't use fancy mounting brackets or anything. We made it work farmer style."

The system will not only power the shop but the new home the Kenyons are building this year.

"Our only utility bills are cellphones and Internet," he said.

Reduced risk

Right now, Kenyon is running his shop — complete with three deep-freezes for his direct-marketed beef — and even his electric fencing off solar panels. But come summer, his new house will be run off solar power too.

"It's pretty new. We've got it up and running, but we're still testing it. So far, it's nice not to have a generator running," said Kenyon of the month-old system.

"On our current system with our batteries, if we went three days without any sun, we'd still have power. After three days of cloud, we might have to start the generator at our current load."

Despite that, Kenyon actually finds his solar generation system more reliable than the electrical system he used to be on.

"In my old place, we had two deep-freezes go down because the power system failed, and each time, it was at least \$1,500 worth of meat that we lost," he said. "I'm in control of it now; before I wasn't.

"If need be, I've got a tank full of fuel here and I can run my generator as a backup. Our deep-freezes will still run if the power goes out for six hours. To me, it's lowering my risk, not increasing it."

In addition to the cost savings, Kenyon appreciates the ability "to do everything remotely."

"I don't have to bring in power poles and a transformer to get power to the place. Solar is portable. It can go anywhere. If I get more land, I can move a fence over there. Everything is temporary and portable."

And while Kenyon is sold on solar power, the jury is still out as to whether it will be a good fit on Nelson's operation. Right now, about one-quarter of his farm is powered by solar energy, but he wants to see how his system (which was up and running in October) operates for a full season before deciding to expand.

"It was an expensive venture, so it's something you have to spend a little bit of time looking at the numbers and decide whether it's going to work for you or not," said Nelson.

"In the case of irrigation, it just seemed like a really good fit. We're fairly confident it will be a good long-term investment.

"If it works well, we'll definitely evaluate it and see if there's another investment we'd like to make."

Wondering if solar might be a fit on your farm?

Before signing a contract for a solar installation, the experts strongly advise doing some serious homework first.

It's not only a big investment, but there are a lot of factors to consider and you'll possibly be living with your decision for decades.

A good place to start is <u>www.solaralberta.ca</u>, which has an extensive database of information ranging from how solar power works and basic FAQs to information on grants and how to select a solar contractor.





Unharvested acres? New information from AFSC

- AFSC understands the pressure the unharvested crops have put on our clients as they wait for fields to dry, in order to deal with the unharvested acres from 2016 and seed the 2017 crop.
- Approximately 960,000 insured crop acres were reported as unharvested for the 2016 crop year.
- In order to assist producers with cash flow, AFSC has paid \$33.2 million in unharvested acreage advance payments on over 2,000 claims.
- If crop acres are to be harvested, claims will be settled when combining has been completed and
 the total production from the crop can be determined by AFSC. If wildlife damage has occurred,
 please contact your local AFSC Branch office as soon as possible and request a wildlife
 inspection before the crop is harvested.
- There will be circumstances where combining the unharvested acres will not be an option for producers. If this is the case, insured producers need to contact their local AFSC Branch Office to setup a pre-harvest inspection so the potential production on those unharvested acres can be assessed.

- Once the pre-harvest assessment is completed, producers will be in a position to carry out their plans for putting their crops to another use (bale, burn, graze, plow down, etc.).
- AFSC recognizes that there is pressure to respond in a timely manner to wildlife and pre-harvest inspection requests. As a result, AFSC has streamlined inspection processes in order to expedite assessments.
 - o In certain circumstances, AFSC may complete pre-harvest and wildlife assessments based on declarations from producers, without the need for a field inspection.
 - The number of required field counts has been reduced when appraising wildlife damage and potential production on the unharvested acres, relying on the inspector's judgement to do more counts when required.
 - In situations where AFSC has determined a crop is unharvestable (e.g. severely lodged)
 or unmarketable, a zero yield will be assessed.
- For producers with more than one crop, AFSC will process claims on a crop-by-crop basis rather than waiting for all crops to be assessed.
- Dealing with the unharvested acres is a priority for AFSC and all available adjusting staff are being deployed to the affected areas to move through claims as quickly as possible.
- Producers who obtained crop insurance for the 2017 crop year are eligible for an unseeded acreage benefit if they are not able to finish seeding by June 20.
- Producers can assist AFSC to respond faster to assessment requests by:
 - 1. Actively monitoring their crops, knowing the location and amount of damage to their crops;
 - 2. Deciding what they are going to do with their unharvested crop acres (spring thrash, bale, burn, graze, plow down, etc.);
 - 3. Notifying their local AFSC Branch Office as soon as possible to report eligible Wildlife damage and their intentions for the unharvested acres;
 - 4. Being prepared to accompany the AFSC Inspector during the assessment; and
 - 5. Filing their revised Harvest Production Report promptly after completing spring harvest.







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Update on the bovine tuberculosis situation

By Alberta Beef Producers

Published: April 25, 2017

Beef Cattle, News

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The number of bovine tuberculosis cases remains at six, but 44 premises and about 8,500 animals are still under quarantine.

Thirty sites have been released from quarantine including low-risk trace-out feedlot cattle, fenceline contact herds, and some trace-out herds (the bulk of trace-out herds have been identified and tested).

Preliminary laboratory testing of all current samples should be completed soon, but culture results will take significantly longer to complete.

To date, all culture results have been negative. Because of calving season, it is expected that the bulk of trace-in testing will occur in the fall of 2017

Big uptake for more humane euthanasia device

Producers rush to acquire non-penetrating bolt stunner after Alberta Pork pilot project

By Alberta Agriculture And Forestry Release

Published: June 2, 2017

Hogs, Livestock

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Photo: Thinkstock

A pilot project promoting a more humane euthanasia device has resulted in its widespread adoption in the Alberta hog sector.

"This more humane method of euthanasia is now well accepted and is being used," said Javier Bahamon, manager of quality assurance with Alberta Pork. "Today, 30 per cent of

Alberta's sow herd is covered. Now we will push to move that even higher."

The device, called a Zephyr, is a non-penetrating bolt stunner that applies 120 joules of charge to the brain or skull of the animal.

Alberta Pork used Growing Forward 2 funding to purchase 50 units and training kits, and initiate a pilot project to introduce the technology to the province's producers and swine veterinarians. Bahamon took Zephyrs to a group of producers he knew to be early adopters of new ideas and respected by their peers. Once these operations had received training and began to use the device, word began to spread from producer to producer and Bahamon's phone started to ring.

"I got a lot of calls from people saying, 'I want it," he said. "Others didn't want to wait — they went out and bought one and asked us to come train them."

The conventional method of euthanizing a young pig is to apply blunt force to the head. Done right, this can work quickly and effectively but results are inconsistent and it's below the level of humane treatment many would like to see. What's more, many barn workers are understandably reluctant to do it, he noted.

Vertical farming grows up and comes of age

Growing food without sunlight or soil is now a reality, but the economics leave little room for error



By Jennifer Blair FOLLOW

Reporter

Published: April 25, 2017

Crops, News

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Partners Wayne Lohr and Ulf Geerds have turned their extensive experience in agriculture and horticulture into a growing vertical farming venture near Olds. *Photo: Jennifer Blair*

Olds-area greenhouse operator Wayne
Lohr and business partner Ulf Geerds are
dreaming big — they want to grow an acre

of strawberries.

That may not sound like a big deal until you consider that acre will take up just 360 square feet and produce strawberries year round. And even though they're grown in racks on a shed, these berries will, the duo says, taste just as good as ones picked fresh in the field on a nice summer day.

"They taste like they're from the field because they actually get the same treatment as from the field. We mimicked the environment that's outside," said Geerds.

"At the end, you'll end up with a crop that has the same taste as from the field, but you can have it year round."

Lohr-A-Lee Indoor Gardens started small with its system, with plans to scale up with an additional 24 panels in the next few months.photo: Jennifer Blair



The duo is talking about vertical farming, a relatively new industry birthed by the advent of LED lights and 'aeroponics' — rather than soil and sunlight — to produce fruit and vegetable crops in a small indoor area.

What was, until fairly recently, the stuff of science fiction is now a reality. Sales of produce grown via this method topped US\$1 billion in 2015, and with production increasing by nearly 30 per cent annually, sales are forecast to surpass \$15 billion by 2025.

And although it's touted as a way to grow food in cities (as well as in countries where land is in short supply), vertical farming has also arrived in Alberta. And it's winning over traditional growers such as Lohr and wife Carolyn, who have been in the greenhouse

business (mostly growing ornamentals) since 1982. They got into vertical farming a year and a half ago, forming Lohr-A-Lee Indoor Gardens with Geerds and his wife, Sangeetha Varghese.

They started small, with two integrated upright systems purchased from Indoor Farms of America. The vertical panels take up a floor area of about 16 square feet in one of Lohr's outbuildings, and have 650 plants in total. That's an incredibly dense 40 plants per square foot of floor space — normally strawberries need one square foot per plant. At that density, their plan to scale up to 360 square feet will give them the equivalent of an acre of strawberries. (Aeroponics means there is no growing medium and roots are kept moist by misting.)

The pair has tried their hand at lettuce, basil, kale, arugula, Swiss chard, and bok choy, but so far, strawberries are the real star. There are no weather, disease, weed, or insect pressures, and with "total control of the environment," the strawberry plants will grow for up to 14 months before needing to be replaced. Normally, the growing season for strawberries is two months, so the potential yield per plant is much higher.

"Effectively, you create an environment that's consistent, so as far as this plant's concerned, it's July 15 every day," said Lohr. "The target is to get four pounds per plant per year. We feel that that's more than achievable. That's the target. The goal is to beat it.

"We don't need to import this stuff. We can grow it here."

'Lots of unknowns'

Despite their belief in vertical farming's future, both men warn that this is not a way to make a quick buck.

That view is echoed by horticulture consultant Cees VandenEnden, owner of HortiSource Consulting in Mountain View County.

"I truly believe that 50 per cent — or maybe even more — of the startups will not see their fifth anniversary," VandenEnden said at a workshop last month. "There are plenty of opportunities. I'll be the last one to say this is not working. But there are some big question marks."

But VandenEnden is being "optimistic," said Lohr, who expects 80 to 90 per cent of startups will fail in their first year.

While vertical farming has many attributes — including a reduced carbon footprint, zero pesticide use, high nutritional value, good water-use efficiency, and local production — anyone taking a "romanticized" view will be in for a rude awakening, said Geerds.

VandenEnden agrees.

"There's a lot going on, and I think it has a lot of potential — it's 'sexy," said VandenEnden. "In the public mind, local produce and knowing your producer is good.

"(But) this piece of the industry is attracting people who have no agricultural background and no growing knowledge. Your learning curve is tremendous and very costly. There are hyped-up expectations, and your startup cost is high. Making an income is not easy."

In addition to the typical challenges associated with agriculture, such as labour and marketing, vertical farming comes with its own set of problems, including picking the right growing system, climate controls, light sources, watering systems, and product mixes.

"There's a lot of thinking and problems to solve," said VandenEnden.

"At this point in time, it's new, so we do not know what works and what doesn't," added Geerds.

Ready for takeoff

Figuring out the market is even trickier. Geerds points to lettuce, which is an "easy" crop to grow.

"Lettuce grows very well in here. In 26 days, we have a crop that we can sell, but the demand is not there," said Geerds. "We want to grow what the market wants. Strawberries make a lot of sense to us because there's a high demand and the quality is very poor from the imports."

Lohr and Geerds have partnered with a retailer for "significant volumes of strawberries weekly" for a small price premium.

"We're getting a reasonable premium over what they're paying wholesalers, but it's not huge," said Lohr. "Economics will ultimately take the premium away, so it comes down to production efficiencies and cost efficiencies."

VandenEnden predicts the fledging industry will quickly scale up.

"It took over 100 years for the greenhouses to go from small entities to the big greenhouses you see nowadays," he said. "But (vertical farming) will not take 100 years to get to that point. It's probably closer to five years or maybe even faster.

"When that volume comes on the market, your premium prices are gone. You'll have to produce for regular market prices."

Competition is already growing in Alberta, he added.

"I was surprised to learn how many people are already doing this in Alberta. That will only increase," said VandenEnden. "Big producers will develop fairly soon, and they will basically drive the prices."

When that happens, production will be "the least of your problems" when compared with marketing, he said.

"It takes time to grow, but it takes a lot of time to market as well," he said. "I've seen very few people who are excellent at growing and do a good job of marketing, too. Most of the time, one of the two is mediocre."

But ultimately, marketing vertically farmed produce is much the same as marketing any other crop, said Lohr.

"Know what it costs you to produce it, know what kind of returns you want, and that tells you what price you need to make money."

A costly venture

Production costs will vary based on the crop and the system used to grow it.

"If a traditional crop costs \$1 to produce, the closed environment systems are costing between \$1.40 and \$2," said VandenEnden. "That's something we have to work on because that is not sustainable."

Generally, the cost of equipment is related to the size of the system, he added, and there will be power and labour costs on top of that.

"With the right setup, there are good prospects, but what is the right setup? You need to go over that in your mind to make the right decision," said VandenEnden.

Geerds agrees.

"You can pretty quickly sink a lot of money into the system, and if you don't do it right, you will definitely lose."

Producers should look at the price per square foot of growing area rather than simply the price per square foot when costing out a system, said VandenEnden. Because vertical panels do more with less space, the growing area square footage is typically about double the actual square footage. The panels at Lohr-A-Lee Indoor Gardens cost \$8,800 each, and Lohr and Geerds are in the process of scaling up with an additional 24 panels.

"It's not cheap, and it does scare the financial world. The big system that would go in the whole building is about the same dollars as a new combine today," said Lohr.



Each vertical panel, which costs \$8,800 each, can accommodate around 325 plants, or 40 plants per square foot.photo: Jennifer Blair

"We've done some pretty elaborate cash flow projecting but again, you've got to look at this on a per-plant basis. They're still big numbers and the bill still has to be paid, but on a per-unit basis, it's not near as scary.

"The ROI is definitely there. You've just got to make it produce."

The test unit they've been running for the past year has helped them verify their cost of production — data that isn't available for this new type of farming.

"Because it's the first commercial system that we'll have, the next system will tell us, do we make money or don't we?" said Geerds, adding they have a few other ideas of crops they can try if strawberries don't pan out.

"We've talked to a lot of people who want to grow very big very fast. I don't think that's the right way to approach it. You have to find the sweet spot. You don't want to be too small but because the science is just developing, we have to really see where the sweet spot is. We're not sure what that is yet."

Lohr's advice is to "start small and learn as you go."

"Do your homework. Otherwise, there's going to be a lot of roadkill."



Join us for an educational day of speaker presentations and trial tours! You will have the chance to interact with fellow producers and experts to learn how best to take care of your farm. A 75\$ fee will include transportation to and from the trial sites, a barbeque lunch, a proceedings booklet, access to the speaker sessions, and a tour of SARDA trials.

THIS YEAR'S TOPICS:

industrial hemp with Jan Slaski
native pollinators with Ralph Cartar
faba beans with Robyne Bowness
the hail project with Lil Trudeau and Jack Wyne

It all takes place on July 13, from 8:30 a.m. – 3:30 p.m. at the Donnelly Sportex.

Register online at Sarda.ca or by phone at 780-837-2900.

Event Name: Summer Field School

Organizer: SARDA Ag Research

Date and Time: July 13, 8:30 a.m. to 3:30 p.m.

Location: Donnelly Sportex, Donnelly, AB

Cost: \$75 (includes lunch)

Registration: At sarda.ca or phone 780-837-2900

Blurb:

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June 2017

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Tue		9	13	20	27 Council meeting
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July 2017

Sat	1	8 Future Farm Canada Expo - Olds	15	22	29	
Fri		7 Future Farm Canada Expo - Olds	14	21	28	
Thu		6 Future Farm Canada Expo - Olds	13 SARDA Ag Reasearch Summer Field School- Donnelly	20	27	
Wed		ડ	12	19 Cereal Agronomy & Wheat Breeding Field Day—Sturgeon County	26 ASB Meeting	
Tue		77	11 Council Meeting	18 Committee Of The Whole	25 Council Meeting	
Mon		3 Office Close Canada Day	10	17	24	31
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August 2017

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Wed	2	6	16	23 ASB Meeting	30
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