

**AGENDA**  
**CLEAR HILLS COUNTY**  
**AGRICULTURAL SERVICE BOARD MEETING**  
**October 15, 2019**

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The Agricultural Service Board meeting of Clear Hills County will be held on Tuesday, October 15, 2019 at 10:00 a.m., meeting in the Council Chambers of the County Administration Office, 313 Alberta Avenue, Worsley, Alberta.

- 1. CALL TO ORDER**
- 2. AGENDA**
- 3. ADOPTION OF PREVIOUS MINUTES**
  - a. September 17, 2019 Regular Meeting Minutes.....2**
- 4. Delegation(s)**
  - a. Peace Country Beef and Forage Association 1:00 p.m.....6**
- 5. BUSINESS ARISING**
- 6. OLD BUSINESS**
  - a. Activity Report.....10**
  - b. Biggest Vegetable Contest.....13**
  - c. 2019 Operating Budget.....15**
  - d. Board Reports .....23**
- 7. NEW BUSINESS**
  - a. Events.....24**
  - b. VSI Program Annual General Meeting .....29**
  - c. Zero Till Drill .....38**
- 8. REPORTS**
  - a. Community Development Manager Report.....41**
  - b. Agricultural Fieldman Report.....53**
- 9. INFORMATION & CORRESPONDENCE.....56**
- 10. CONFIDENTIAL**
- 11. ADJOURNMENT**

**MINUTES OF CLEAR HILLS COUNTY  
AGRICULTURAL SERVICE BOARD MEETING  
COUNCIL CHAMBERS, Worsley, Alberta  
September 17, 2019**

<u>PRESENT</u>	<table border="0"> <tr> <td>Brian Harcourt</td> <td>Chair</td> </tr> <tr> <td>Baldur Ruecker</td> <td>Deputy Chair</td> </tr> <tr> <td>Julie Watchorn</td> <td>Member</td> </tr> <tr> <td>David Janzen</td> <td>Council Representative</td> </tr> <tr> <td>Garry Candy</td> <td>Member</td> </tr> </table>	Brian Harcourt	Chair	Baldur Ruecker	Deputy Chair	Julie Watchorn	Member	David Janzen	Council Representative	Garry Candy	Member
Brian Harcourt	Chair										
Baldur Ruecker	Deputy Chair										
Julie Watchorn	Member										
David Janzen	Council Representative										
Garry Candy	Member										
<u>ATTENDING</u>	<table border="0"> <tr> <td>Allan Rowe</td> <td>Chief Administrative Officer</td> </tr> <tr> <td>Sarah Hayward</td> <td>Community Development Clerk</td> </tr> <tr> <td>Greg Coon</td> <td>Agricultural Fieldman</td> </tr> </table>	Allan Rowe	Chief Administrative Officer	Sarah Hayward	Community Development Clerk	Greg Coon	Agricultural Fieldman				
Allan Rowe	Chief Administrative Officer										
Sarah Hayward	Community Development Clerk										
Greg Coon	Agricultural Fieldman										
<u>ABSENT</u>	<table border="0"> <tr> <td>MacKay Ross</td> <td>Member</td> </tr> </table>	MacKay Ross	Member								
MacKay Ross	Member										
<u>CALL TO ORDER</u>	Chair Harcourt called the meeting to order at 10:02 a.m.										
<u>AGENDA</u> <b>AG132(09/17/19)</b>	<p><b>RESOLUTION by Member Candy that this Agricultural Service Board adopts the agenda governing the August 20, 2019 Agricultural Service Board meeting as presented. CARRIED.</b></p> <p>Deputy Chair Ruecker entered the meeting at 10:04 a.m.</p>										
<b>AG133(09/17/19)</b>	<p><b>RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board adopts the minutes of the August 20, 2019 Agricultural Service Board Meeting as presented. CARRIED.</b></p>										
<u>OLD BUSINESS</u> Activity Report	The Board is presented with the Agricultural Service Board Activity Report.										
<b>AG134(09/17/19)</b>  Grain Bag Usage Resolution	<p><b>RESOLUTION by Councillor Janzen that this Agricultural Service Board accepts the September 17, 2019 Agricultural Service Board Activity Report as presented. CARRIED.</b></p> <p>The Board is presented with a draft resolution for the Regional Agricultural Service Board Conference to implement an advertising and education campaign to encourage the reduction of grain bag use and promote more permanent and lower cost per bushel grain storage alternatives.</p>										
<b>AG135(09/17/19)</b>	<p><b>RESOLUTION by Member Watchorn that this Agricultural Service board submit the following Resolution to the 2019 Regional Agricultural Service Board Conference:</b></p> <p><b>WHEREAS recycling of agricultural plastics remains a significant challenge, leaving transfer stations full of used grain bags;</b></p> <p><b>WHEREAS Alberta had the highest percentage of total grain in on farm temporary storage in Canada in 2017<sup>1</sup>;</b></p>										

	<p>WHEREAS there are many misconceptions and a lack of information on costs, advantages and disadvantages of different forms of grain storage;</p> <p>THEREFORE BE IT RESOLVED THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST that the Ministers of Agriculture and Forestry, and all other relevant government ministries implement an education and advertising program that would provide producers with economically and scientifically relevant information to assist them when deciding on what storage options would work best for them. CARRIED.</p>
Federal Health of Animals Regulations	<p>The Board tabled the topic of proposed amendments to Part XV of the Federal Health of Animals Regulations meeting.</p>
AG136(09/17/19)	<p><b>RESOLUTION by Member Candy that this Agricultural Service Board accept for information the discussion around the proposed amendments to Part XV of the Federal Health of Animals Regulations. CARRIED.</b></p>
Farmer Exemptions for Class 1 Driver Training	<p>The Board is presented with a response letter from Honorable Ric McIver, Minister of Transportation, regarding the Class 1 MELT Exemptions for agricultural producers and farm workers. The Board sent a letter to Honorable Ric McIver on June 19, 2019.</p>
AG137(09/17/19)	<p><b>RESOLUTION by Councillor Janzen that this Agricultural Service Board accept for information the response letter from Honourable Ric McIver, Minister of Transportation, regarding Class 1 exemptions for agricultural producers and farm workers. CARRIED.</b></p>
Chinook Applied Research Association (CARA)	<p>The Board directed administration to research costs associated with planning a tour to the Chinook Applied Research Association (CARA) Soil Sampling Lab.</p>
AG138(09/17/19)	<p><b>RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board Recommend Council include \$10,000.00 from the Rate Stabilization Reserve to cover the costs of the Agricultural Service Board honorariums, travel and subsistence for the remainder of 2019. CARRIED.</b></p>
AG139(09/17/19)	<p><b>RESOLUTION by Member Watchorn that this Agricultural Service Board accept for information the costs associated with planning a tour to the Chinook Applied Research Association Soil Sampling Lab in Oyen, Alberta. CARRIED.</b></p>
Board Reports	<p>At this time the Board members will have an opportunity to present their reports on meetings attended and other agricultural related topics.</p>

<b>AG140(09/17/19)</b>	<b>RESOLUTION by Member Watchorn that this Agricultural Service Board accepts the September 17, 2019 Board members' written and verbal reports for information as presented. CARRIED.</b>
<u>NEW BUSINESS</u> Events	The Board is presented with events for their consideration.
<b>AG141(09/17/19)</b>	<b>RESOLUTION by Member Watchorn that this Agricultural Service Board rescind Resolutions AG124(08/20/19) and AG125(08/20/19). CARRIED.</b>
<b>AG142(09/17/19)</b>	<b>RESOLUTION by Chair Harcourt that this Agricultural Service Board authorize members to attend the 2019 Regional Agricultural Service Board Conference being held on October 29, 2019 at the St. Isidore Cultural Centre. CARRIED.</b>
2020 Operating Budget	The Board is presented with cost and information on developing an Alternative Land Use Services (ALUS) program.
<b>AG143(09/17/19)</b>	<b>RESOLUTION by Councillor Janzen that this Agricultural Service Board accept for information the costs and process for implementing an Alternative Land Use Services program. CARRIED.</b>  Chair Harcourt recessed for lunch at 11:53 a.m. Chair Harcourt reconvened the meeting at 12:26 p.m.
Multi- Year Capital Plan	The Board is presented with considerations for the Multi-Year Capital Plan and 2020 Capital Budget.
<b>AG144(09/17/19)</b>	<b>RESOLUTION by Councillor Janzen that this Agricultural Service Board recommend Council move the \$25,000 for a replacement PTO water pump from 2020 to 2021 in the Multi-year Capital Plan. CARRIED.</b>
<b>AG145(09/17/19)</b>	<b>RESOLUTION by Member Watchorn that this Agricultural Service Board recommend Council include \$32,000.00 in the 2020 Capital Budget for a second side by side, trailer and sprayer. CARRIED.</b>
<b>AG146(09/17/19)</b>	<b>RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board recommend Council include \$9,000.00 for two tablets and associated software and licensing costs for GIS tracking and mapping of vegetation control herbicide applications on road right-of-ways in the 2020 Operating Budget. CARRIED.</b>



REPORTS

Agricultural Fieldman  
Report

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

**AG147(09/17/19)**

**RESOLUTION by Councillor Janzen that this Agricultural Service Board accepts the September 17, 2019 Agricultural Fieldman's Report for information as presented. CARRIED.**

Information &  
Correspondence

The Board is presented with correspondence for review.  
1. Peace Country Beef and Forage Association – letter – (63-10-02)

**AG148(09/17/19)**

**RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board receives the Information and Correspondence as presented. CARRIED.**

ADJOURNMENT

Chair Harcourt adjourned the meeting at 1:17 p.m.

\_\_\_\_\_  
CHAIR

\_\_\_\_\_  
AGRICULTURAL FIELDMAN

# Clear Hills County Request For Decision (RFD)

Meeting:	<b>Agricultural Service Board</b>
Meeting Date:	October 15, 2019
Originated By:	Greg Coon, Agricultural Fieldman
Title:	<b>DELEGATION – Peace Country Beef &amp; Forage Association 1:00 p.m.</b>
File:	63-10-02

## DESCRIPTION:

Peace Country Beef & Forage Association (PCBFA) Manager, Liisa Jeffrey, will be in attendance at 1:00 p.m. to present a report on the 2019 Environmental Stream partnership program and present the plans for the 2020 program along with a funding request. Also presented will be the updates on the PCBFA programs, funding and direction.

## BACKGROUND:

## BUDGET/COSTS:

## ATTACHMENTS:

- PCBFA Funding Request letter
- Delegation Request from Liisa Jeffrey

## OPTIONS:

## RECOMMENDED MOTION:

RESOLUTION by... that this Agriculture Service Board accept for information the delegation from Liisa Jeffrey, Manager, Peace Country Beef and Forage Association on the 2019 Environmental Stream partnership program and 2020 programming.

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





**From:** Liisa Jeffrey [mailto:[liisa@pcbfa.ca](mailto:liisa@pcbfa.ca)]  
**Sent:** September-05-19 12:01 PM  
**To:** Greg Coon  
**Subject:** PCBFA Funding Support Request 2020-21

Good morning,

Attached is our annual letter of request for continued funding support for the 2020-21 fiscal year. I was also wondering if we could possibly attend an ASB meeting in September or October, to give our usual annual update presentation?

As you know, I will be going on maternity leave likely sometime in November, and I would greatly appreciate it if we could do our presentation before I leave. I can also introduce everyone to my maternity leave replacement, Chelsey Hostettler, at that time.

Thank you,

-----  
Liisa Jeffrey, B.Sc.(Agr.), AIT  
Manager  
Peace Country Beef & Forage Association  
Box 3000, Fairview, AB T0H 1L0  
P: (780) 523-0443  
F: (780) 835-6628  
[www.peacecountrybeef.ca](http://www.peacecountrybeef.ca)



# Clear Hills County

## Request For Decision (RFD)

Meeting:	Agricultural Service Board
Meeting Date:	October 15, 2019
Originated By:	Greg Coon, Agricultural Fieldman
Title:	<b>ACTIVITY REPORT</b>
File:	63-10-02

### DESCRIPTION:

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

### BACKGROUND:

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

### ATTACHMENTS:

- Agricultural Service Board Activity Report

### RECOMMENDED ACTION:

RESOLUTION by \_\_\_\_\_ that this Agricultural Service Board (ASB) accepts the October 15, 2019 ASB Activity Report as presented.

Initials show support - Reviewed by: 16 Manager: ABj AgFieldman: GC





**Senior Management Team Agricultural Service Board**

**Activity Report for October 15, 2019 Page 1 of 2**

Budget Items:

Completed Items:

CAO = Chief Administrative Officer

CSM = Corporate Services Manager

DO= Development Officer

AF = Ag. Fieldman

EA = Executive Assistant

CDM = Community Development Manager

**MOTION      DATE      DESCRIPTION      DEPT      STATUS**

REGULAR AGRICULTURAL SERVICE BOARD MEETINGS				
<b>October 15, 2018</b>				
AG93	(10/15/18)	RESOLUTION by Chair Harcourt that this Agricultural Service Board approach the Peace Country Beef and Forage Association to investigate planning a No-Till Conference for northern Alberta for the winter of 2019-2020.	AF	
AG110	(10/15/18)	RESOLUTION by Councillor Janzen that this Agricultural Service Board approach Peace Country Beef and Forage Association to host a conference or workshop on economic field rotations and organic farming alternatives within Clear Hills County.	AF	
AG32	(02/20/19)	RESOLUTION by Member Ross that this Agricultural Service Board direct administration to approach the Peace Country Beef and Forage about holding a Gate to Plate Marketing workshop in Clear Hills County to assist producers in direct marketing their produce and other farm products.		
<b>September 17, 2019</b>				
AG135	(09/14/19)	<p>RESOLUTION by Member Watchorn that this Agricultural Service board submit the following Resolution to the 2019 Regional Agricultural Service Board Conference:</p> <p>WHEREAS recycling of agricultural plastics remains a significant challenge, leaving transfer stations full of used grain bags;</p> <p>WHEREAS Alberta had the highest percentage of total grain in on farm temporary storage in Canada in 20171;</p> <p>WHEREAS there are many misconceptions and a lack of information on costs, advantages and disadvantages of different forms of grain storage;</p> <p>THEREFORE BE IT RESOLVED THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST that the Ministers of Agriculture and Forestry, and all other relevant government ministries implement an education and advertising program that would provide producers with economically and scientifically relevant information</p>		Submitted





## Senior Management Team Agricultural Service Board

### Activity Report for October 15, 2019 Page 2 of 2

Budget Items:

CAO = Chief Administrative Officer

DO= Development Officer

EA = Executive Assistant

Completed Items:

CSM = Corporate Services Manager

AF = Ag. Fieldman

CDM = Community Development Manager

MOTION	DATE	DESCRIPTION	DEPT	STATUS
		to assist them when deciding on what storage options would work best for them.		
AG138	(09/17/19)	RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board Recommend Council include \$10,000.00 from the Rate Stabilization Reserve to cover the costs of the Agricultural Service Board honorariums, travel and subsistence for the remainder of 2019.	CDM	Council motion on Sept 24 C458-19(09/24/19)
AG141	(09/17/19)	RESOLUTION by Member Watchorn that this Agricultural Service Board rescind Resolutions AG124(08/20/19) and AG125(08/20/19).	CDC	Complete
AG144	(09/17/19)	RESOLUTION by Councillor Janzen that this Agricultural Service Board recommend Council move the \$25,000 for a replacement PTO water pump from 2020 to 2021 in the Multi-year Capital Plan.	CDM	C503-19(10-08-19) CDM Report
AG145	(09/17/19)	RESOLUTION by Member Watchorn that this Agricultural Service Board recommend Council include \$32,000.00 in the 2020 Capital Budget for a second side by side, trailer and sprayer.	CDM	C504-19(10-08-19) CDM Report
AG146	(09/17/19)	RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board recommend Council include \$9,000.00 for two tablets and associated software and licensing costs for GIS tracking and mapping of vegetation control herbicide applications on road right-of-ways in the 2020 Operating Budget.	CDM	C505-19(10-08-19) CDM Report
<b>Items in Waiting</b>				
AG133	(12/12/16)	RESOLUTION by Member Watchorn that this Agricultural Service Board table the discussion around the CombCut Selective Mower and bring back information once the University of Saskatchewan field trial study is complete.		2020 OR 2021
AG21	(02/13/17)	RESOLUTION by Deputy Chair Ruecker that this Agricultural Service Board table motion AG109(10/17/16) regarding Glyphosate Tolerant Wheat until new information is available.		As of Nov 9 2018 no new info

# Clear Hills County Request For Decision (RFD)

Meeting: Agricultural Service Board  
 Meeting Date: October 15, 2019  
 Originated By: Audrey Bjorklund, Community Development Manager  
 Title: **Biggest veggie contest Policy**  
 File: 63-10-02

**DESCRIPTION:**

The Board is presented with feedback and results from the 2<sup>nd</sup> Annual Biggest Vegetable Contest.

**BACKGROUND:**

Administration had weigh in stations help across the County from September 23-27, 2019.  
 September 23<sup>th</sup> – Bear Canyon – 8 people  
 September 24<sup>th</sup> – Cleardale – 12 people  
 September 25<sup>th</sup> – David Thompson Hall – 0 people  
 September 26<sup>th</sup> – Hines Creek – 4 people  
 September 27<sup>th</sup> – Worsley – 12 people

Total number of entries throughout the week: 74 Adult entries  
 47 kids entries

	Adult	Category		Kids	Category
1st	Harvey Edmunds	Beets	1st	Joseph Zacharias	Beets
1st	Harvey Edmunds	Cabbage	1st	No entries	Cabbage
1st	Doug Richardson	Carrots	1st	Anthony Bjorklund	Carrots
1st	Doug Richardson	Onions	1st	Kyla Rucker	Corn
1st	Susan Bergen	Other Squash	1st	Olivia Stevenson	Most Unique
1st	Lenora Gordon	Potato	1st	Olivia Stevenson	Onions
1st	Kane Richardson	Pumpkin	1st	Kyle Kamphuis	Other Squash
1st	Doug Richardson	Tomato	1st	Kenzie Kamphuis	Potato
1st	Doug Richardson	Turnip	1st	Alex Ross	Pumpkin
1st	Loretta Waughtal	Zucchini	1st	Markus Driedger	Tomato
1st	Linda Basnett	Most Unique	1st	Kyla Ruecker	Turnip
			1st	Alex Ross	Zucchini
	<b>Total:</b>	<b>\$550.00</b>		<b>Total:</b>	<b>\$550.00</b>

**Suggestions:**

- Adding cabbage as a category
- Recommending removing David Thompson Hall weight station. In the past two years of the contest we have not had anyone show up.
- Eliminate Friday evening weigh station and suggest weight ins be at the County office on Thursday 3:30 p.m. – 7:00 p.m. and have business hours only on Friday at the County office.
- Member Ross suggested adding weights to the winner announcement. The heaviest is not always by weight it is sometimes length and diameter that wins the Biggest Vegetable.

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

ATTACHMENTS:

- Policy 6317

OPTIONS:

1. Recommend Council amend Policy 6317 with adding cabbage as a category, remove David Thompson Hall weigh station, eliminate Friday evening weigh station and hold weigh ins at the County office on Thursday 3:30 p.m. – 7:00 p.m. and have business hours only on Friday at the County office.
2. Accept for information.

RECOMMENDED ACTION:

RESOLUTION by... that this Agricultural Service Board recommend

Initials show support - Reviewed by: Manager:

AgFieldman:



# Clear Hills County Request For Decision (RFD)

Meeting:	<b>Agricultural Service Board</b>
Meeting Date:	October 15, 2019
Originated By:	Audrey Bjorklund, CLGM, Community Development Manager
Title:	<b>2019 OPERATING BUDGET</b>
File:	63-10-02

## DESCRIPTION:

The Board is presented with the first draft of the 2020 Agricultural Services Operating Budget.

## BACKGROUND:

C505-19(10-08-19) RESOLUTION by Councillor Frixel to include \$9,000.00 for two tablets and associated software and licensing costs for GIS tracking and mapping of vegetation control herbicide applications on road rights-of-way in the 2020 Operating Budget. CARRIED.

## ATTACHMENTS.

- 2020 & Beyond ASB budget prep notes
- 2020 Draft Operating Budget detail
- 

## OPTIONS:

1. Recommend to Council the Agricultural Service Board 2020 Operating Budget as presented.
2. Recommend to Council with the following additions/deletions/changes....

## RECOMMENDED MOTION:

RESOLUTION by ..... that this Agricultural Service Board recommend Council approve the Agricultural Service Board 2020 Operating Budget as presented.

<b>Initials show support - Reviewed by: Manager:</b> <i>ABJ</i> <b>AgFieldman:</b> <i>GC</i>
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## 2020 and Beyond Budget Prep Notes

As of October 9, 2019

### REVENUE:

- |    |           |  |
|----|-----------|--|
| 1. | \$273,359 | 1-63-10-00-840 ASB Grant (168,359 Leg + \$105K Env. estimated on 2017-2019)      |
| 2. | \$25,000  | 1-63-10-00-560 Rental Equipment Revenue (estimated on 2019 YTD actual)           |
| 3. | \$600     | 1-63-10-00-420 ASB Sale of Service – Community Room Rental                       |
| 4. | \$3,000   | 1-63-10-30-412 Tradeshow Banquet: (225 max, Adults \$20, 8-14 \$10, 7 down free) |
| 5. | \$14,000  | 1-63-10-30-560 Tradeshow Exhibitors (based on 2018 actual)                       |
| 6. | \$17,000  | 1-63-10-30-860 Tradeshow Sponsorship (based on 2018 actual)                      |
| 7. | \$500     | 1-63-10-40-529 ASB VSI Memberships (renewals/new)                                |
| 8. | \$5,000   | 1-63-10-00-596 Weed Control Enforcement (cost recovery)                          |
| 9. | \$3,000   | 1-63-60-00-296 Urban Weed Control agreement with VoHC (cost recovery)            |

### EXPENSES:

#### 31-63-Rental Equipment

##### Operating

1. \$9,250
  - a. Tires on both water pump trailers = 7 tires x \$150.00
  - b. Wheel Bearings on one water pump trailer = \$600
  - c. Hard surfacing rock picker & rock rake = \$1500 total
  - d. Sickle mower needs tires 2 x \$100
  - e. Grain vac – replace all belts & turbine bearings = \$3,000 minimum (will need mechanic)
  - f. Grain bag extractor – hydraulic rams seep = 2 x \$250
  - g. Corral panels – 1 panel needs welding \$150
  - h. Grain bag roller – level & valve bank \$250
  - i. Water pumps – spare primer pump \$250
  - j. Tree spade – replace valve bank \$250
  - k. Portable loading chute – rusting badly – sand blast & paint \$1500

#### 63-Agriculture

##### Operating

1. \$9,000 2-63-40-02-518 2 Tablets & associates software, licensing etc for road side vegetation control program C505-19(10/08/19)
2. \$1,700 2-63-50-02-518 Replace oldest WI Tablet each year
3. \$1,235 2-63-10-20-239 Alberta Farm Safety program into School pay per students visited. Unsure of the status of this program with the new farm safety legislation and changes made at the provincial level no invoices received in 2018 or 2019, budgeted for 2020 and if no further action will remove in 2021.
4. \$2,500 2-63-40-10-531 15 miles of brush spraying
5. \$15,000 2-63-40-30-531 Moved ditch spray herbicide budget from General to Shoulder (where it is actually coded) 2020

##### Capital:

1. \$30,000 Annual contribution to Rental Equipment Reserve
2. \$32,000 C504-19(10/09/19) second side by side trailer and sprayer
3. \$25,000 C503-19 (10/09/19) move replacement PTO water pump from 2020 to 2021 in the Multi-year Capital Plan.



Clear Hills County  
2019 Operating Expense Report  
As at: July 31, 2019  
And: December 31, 2018

Expenditure Account	FUNCTION	2016 Actual		2017 Actual		2018 Actual		2019 Actual		2020 Budget		2021 Budget		2022 Budget	
		12/31/16	12/31/17	12/31/18	7/31/19	12/31/18	7/31/19	12/31/18	7/31/19	Budget	Notes	Budget	Budget	Budget	
2-63-02-02-11*	Ag Svc - ASB - Wages	151,801	117,499	97,362	57,295	171,360	171,360	171,360	171,360	will be adjusted with COLA	183,527	183,527	186,557		
2-63-02-02-13*	Ag Svc - ASB - Employer Contributions	86,090	83,484	74,422	18,717	96,390	96,390	96,390	96,390	will be adjusted with COLA	103,234	103,234	110,563		
2-63-02-02-148	Ag Svc - ASB - Training & Education	2,827	1,269	-	930	2,500	2,500	2,500	2,500	AF \$500 + CDC \$1000	1,071	1,071	1,147		
2-63-02-02-159	Ag Svc - ASB - Fees for Service	0	4,625	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-211	Salaries Wages and Benefits	242,707	206,878	171,784	76,942	270,250	270,250	270,250	270,250	AF & CDM IST & ASB 1 wk ea + 1 course	287,831	287,831	308,267		
2-63-02-02-214	Ag Svc - ASB - Travel & Subsistence	15,732	10,069	8,531	5,345	10,000	10,000	10,000	10,000	200k x 2 AAFAF - 600x2 IST & 600 ASB C	10,710	10,710	11,470		
2-63-02-02-215	Ag Svc - ASB - Membership & Conference Fee	825	3,420	2,030	30	2,200	2,200	2,200	2,200	-	2,356	2,356	2,523		
2-63-02-02-216	Ag Svc - ASB - Freight & Postage	284	314	326	190	243	243	243	243	-	251	251	258		
2-63-02-02-217	Ag Svc - ASB - Internet	4,965	6,563	3,397	1,047	5,000	5,000	5,000	5,000	-	3,641	3,641	3,900		
2-63-02-02-219	Ag Svc - ASB - Hospitality	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-221	Ag Svc - ASB - Advertising & Promotion	804	0	-	166	-	-	-	-	2019 miscoded	-	-	-		
2-63-02-02-222	Ag Svc - ASB - Printing & Binding	215	-	84	-	100	100	100	100	-	-	-	-		
2-63-02-02-223	Ag Svc - ASB - Subscriptions & Publications	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-224	Ag Svc - ASB - Municipal Membership Fees	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-229	Buildings - Office & Shop (25%)	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-239	Ag Svc - ASB - Other Contracted Services	72,429	63,169	54,216	25,698	74,847	74,847	74,847	74,847	-	80,558	80,558	80,558		
2-63-02-02-242	Ag Svc - ASB - Building Chargeback	9,059	11,790	13,289	4,159	14,785	14,785	14,785	14,785	-	15,715	15,715	15,715		
2-63-02-02-245	Ag Svc - ASB - Vehicle Chargebacks	406	935	831	711	900	900	900	900	-	957	957	957		
2-63-02-02-247	Ag Svc - ASB - Mapping chargebacks	2,157	2,157	2,157	2,157	2,163	2,163	2,163	2,163	-	2,263	2,263	2,263		
2-63-02-02-248	Ag Svc - ASB - Communications Chargeback	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-265	Ag Svc - ASB - Vehicle Rental	768	546	655	546	550	550	550	550	based on 2018 actual	675	675	696		
2-63-02-02-274	Ag Svc - ASB - Insurance	42	28	-	45	50	50	50	50	drivers abstracts seasonal	52	52	53		
2-63-02-02-279	Ag Svc - ASB - Other Miscellaneous Services	107,707	99,167	85,563	40,095	110,837	110,837	110,837	110,837	-	117,177	117,177	118,394		
2-63-02-02-511	Contracted & General Services	251	76	68	-	250	250	250	250	-	103	103	106		
2-63-02-02-514	Ag Svc - ASB - Stationary Supplies	24	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-515	Ag Svc - ASB - Consumable & Bulk Foods	0	390	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-518	Ag Svc - ASB - Catered & Prepared Foods	0	144	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-519	Ag Svc - ASB - Furniture, ADP & Comms Purc	2,284	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-522	Ag Svc - ASB - Other General Goods & Supplie	0	2,284	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-524	Ag Svc - ASB - Tires, Batteries and Accessorie	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-524	Ag Svc - ASB - Consumable Tools	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-711	Materials, Goods & Utilities	275	2,894	68	-	250	250	250	250	-	103	103	106		
2-63-02-02-711	Ag Svc - ASB - Grants To Individuals & NGOs	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-771	Ag Svc - AESA - General - Grants	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-782	Ag Svc - ASB - To Capital Programs	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-764	Ag Svc - Transfer to Reserve	30,000	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-764	Ag Svc - Transfer to Reserve	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-792	Ag Svc - ASB - Amor Exp - Buildings	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-792	Ag Svc - ASB - Amor Exp - Buildings	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-793	Ag Svc - ASB - Amor Exp - Mach & Equip	19,322	15,731	12,875	-	15,731	15,731	15,731	15,731	-	-	-	-		
2-63-02-02-795	Ag Svc - ASB - Amor Exp - Vehicles	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-814	Amortization Expense	19,322	15,731	12,875	-	15,731	15,731	15,731	15,731	-	-	-	-		
2-63-02-02-814	Transfer Payments	49,322	15,731	12,875	-	15,731	15,731	15,731	15,731	-	-	-	-		
2-63-02-02-814	Ag Svc - ASB - Charges, Penalties & Other Ch	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-814	Financial Services & Other Charges	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-02-02-814	Ag Svc - General	400,011	324,669	270,291	117,038	397,067	397,067	397,067	397,067	285,398	405,111	405,111	426,767		
2-63-10-02-11*	Ag Svc - Improvement - General - Wages	0	0	171	-	-	-	-	-	-	-	-	-		
2-63-10-02-13*	Ag Svc - Improvement - General - Employer Co	876	905	1,370	560	900	900	900	900	-	928	928	957		
2-63-10-02-159	Ag Svc - Improvement - General - Other Fees f	23,573	19,553	31,236	15,614	26,400	26,400	26,400	26,400	ASB Honorariums	27,218	27,218	28,062		
2-63-10-02-211	Ag Svc - Improvement - General - Travel & Sub	18,827	18,584	27,735	15,718	25,000	25,000	25,000	25,000	ASB Conf in Banff (flights)	25,775	25,775	26,574		
2-63-10-02-214	Ag Svc - Improvement - General - Membership	7,592	9,290	9,649	2,378	8,000	8,000	8,000	8,000	may be less re ASB B/Law Oct 8	8,248	8,248	8,504		
2-63-10-02-215	Ag Svc - Improvement - General - Freight & Po	135	17	271	-	135	135	135	135	-	139	139	143		
2-63-10-02-216	Ag Svc - Improvement - General - Internet	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-10-02-219	Ag Svc - Improvement - General - Hospitality	222	199	2,408	-	-	-	-	-	Host Regional ASB Conf in 2031 next	-	-	-		
2-63-10-02-221	Ag Svc - Improvement - General - Advertising &	17	0	689	-	-	-	-	-	2021 members at large ad election ye	250	250	250		
2-63-10-02-222	Ag Svc - Improvement - General - Printing & B	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-10-02-223	Ag Svc - Improvement - General - Subscription	0	0	500	-	500	500	500	500	-	-	-	-		
2-63-10-02-224	Ag Svc - Improvement - General - Municipal Mf	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-10-02-232	Ag Svc - Improvement - General - Legal	0	0	-	-	-	-	-	-	-	-	-	-		
2-63-10-02-263	Ag Svc - Improvement - General - Equipment &	0	0	-	225	-	-	-	-	Trailer rental Shinterbelt program 2020 cost rec	252	252	239		

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		Actual	12/31/16	Actual	12/31/17	Actual	12/31/18	Actual	7/31/19					
2-63-10-02-279	Aq Svc - Improvement - General - Other Miscel	14												
2-63-10-02-511	Aq Svc - Improvement - General - Stationery S	116				15								
2-63-10-02-515	Aq Svc - Improvement - General - Catered or P	1,720		2,715		2,952		969		2,000			2,062	2,126
2-63-10-02-517	Aq Svc - Improvement - General - Safety Suppl	0												
2-63-10-02-519	Aq Svc - Improvement - General - Other Gener	495		842		1,372				1,200			1,237	1,276
2-63-10-02-521	Aq Svc - Improvement - General - Gas, Oil, Lut	0												
2-63-10-02-523	Aq Svc - Improvement - General - Equipment, f	0												
2-63-10-02-524	Aq Svc - Improvement - General - Consumable	0												
2-63-10-02-529	Aq Svc - Improvement - General - Other Equip	0						143						
2-63-10-02-771	Aq Svc - Improvement - General - Grants	9,600				700		600		1,000			619	638
2-63-10-02-783	Aq Svc - Improvement - General - Amortization	2,659				2,236				2,236				
2-63-10-10-11*	Aq Svc - Improv - Rental Equip - Wages	66,846		66,427		81,303		36,207		64,510			66,760	68,822
2-63-10-10-13*	Aq Svc - Improv - Rental Equip - Employer Cor	2,285		7,647		13,065		9,167		15,000			15,465	15,944
2-63-10-10-211	Aq Svc - Improv - Rental Equip - Freight & Post	338		2,350		3,614		2,698		3,200			3,299	3,401
2-63-10-10-212	Aq Svc - Improv - Rental Equip - Advertising &	594		133										
2-63-10-10-221	Aq Svc - Improv - Rental Equip - Printing & Bln	127												
2-63-10-10-222	Aq Svc - Improv - Rental Equip - Other Profess	0				95								
2-63-10-10-239	Aq Svc - Improv - Rental Equip - Building Char	0												
2-63-10-10-242	Aq Svc - Improv - Rental Equip - Equipment Ch	0												
2-63-10-10-263	Aq Svc - Improv - Rental Equip - Equipment R&	18,040		8,104		16,589		13,094					1,505	1,505
2-63-10-10-271	Aq Svc - Improv - Rental Equip - Licenses & Pe	0		320									23,917	23,917
2-63-10-10-274	Aq Svc - Improv - Rental Equip - Insurance	274		44		71		59					73	75
2-63-10-10-511	Aq Svc - Improv - Rental Equip - Stationery Sui	0												
2-63-10-10-513	Aq Svc - Improv - Rental Equip - Janitorial Sup	46												
2-63-10-10-519	Aq Svc - Improv - Rental Equip - Other Genera	6,243		980						250			103	106
2-63-10-10-521	Aq Svc - Improv - Rental Equip - Gas, Oil & Lut	113		15		25							103	106
2-63-10-10-522	Aq Svc - Improv - Rental Equip - Tires, Batteri	0												
2-63-10-10-523	Aq Svc - Improv - Rental Equip - Equipment, M	0		374										
2-63-10-10-524	Aq Svc - Improv - Rental Equip - Consumable	0												
2-63-10-10-529	Aq Svc - Improv - Rental Equip - Other Equipm	0		83										
2-63-10-10-538	Aq Svc - Improv - Rental Equip - Storage	0		277										
2-63-10-10-773	Aq Svc - Improv - Rental Equip - Grants	0												
2-63-10-10-791	Aq Svc - Improv - Rental Equip - Amor Exp - M	6,886		7,781		7,781		25,018		7,781			44,466	45,056
2-63-10-20-11*	Aq Svc - Improvement - Rental Equipment	34,945		28,873		41,240				45,247				
2-63-10-20-13*	Aq Svc - Improvement - Public - Wages	0												
2-63-10-20-211	Aq Svc - Improvement - Public - Employer Con	0												
2-63-10-20-214	Aq Svc - Improvement - Public - Travel & Subs	0				135								
2-63-10-20-215	Aq Svc - Improvement - Public - Membership &	0				75								
2-63-10-20-219	Aq Svc - Improvement - Public - Freight & Post	0												
2-63-10-20-221	Aq Svc - Improvement - Public - Hospitality	0												
2-63-10-20-221	Aq Svc - Improvement - Public - Advertising & P	0		1,000		650		500		1,600			2,990	3,083
2-63-10-20-223	Aq Svc - Improvement - Public - Subscriptions	0		282									1,650	1,701
2-63-10-20-224	Aq Svc - Improvement - Public - Municipal Men	767												
2-63-10-20-229	Aq Svc - Improvement - Public - Other Inform	0				756								
2-63-10-20-235	Aq Svc - Improvement - Public - Consultants	882		1,050						1,235			1,600	1,600
2-63-10-20-239	Aq Svc - Improvement - Public - Other Profess	0												
2-63-10-20-262	Aq Svc - Improvement - Public - Building Renta	0		136										
2-63-10-20-355	Aq Svc - Improvement - Public - Other Municip	0												
2-63-10-20-514	Aq Svc - Improvement - Public - Bulk Foods	0		12,500		12,500		17,500		22,500			17,500	17,500
2-63-10-20-519	Aq Svc - Improvement - Public - Other Genera	130		3										
2-63-10-20-532	Aq Svc - Improvement - Public - Awareness Ch	0												
2-63-10-30-11*	Aq Svc - Improvement - Public	1,779		14,972		14,116		18,000		29,235			24,771	24,946
2-63-10-30-13*	Aq Svc - Improv - Tradeshow - Wages	18,973		20,868		20,898		21,334		23,562			25,235	27,027
2-63-10-30-148	Aq Svc - Improv - Tradeshow - Employer Contr	4,431		4,906		5,329		5,227		5,707			6,112	6,546
2-63-10-30-149	Aq Svc - Improv - Tradeshow - Training & Educ	0											206	213
2-63-10-30-159	Aq Svc - Improv - Tradeshow - Other Fees for S	420												
2-63-10-30-211	Aq Svc - Improv - Tradeshow - Travel & Subst	1,691		3,060		484		613		500			634	654
2-63-10-30-215	Aq Svc - Improv - Tradeshow - Freight & Post	1,274		1,294		1,306		1,789		1,500			1,547	1,944
2-63-10-30-217	Aq Svc - Improv - Tradeshow - Telephone	0												
2-63-10-30-219	Aq Svc - Improv - Tradeshow - Hospitality	0												
2-63-10-30-221	Aq Svc - Improv - Tradeshow - Advertising & Pr	9,275		9,659		7,190		8,144		8,000			8,248	8,504
2-63-10-30-222	Aq Svc - Improv - Tradeshow - printing & Binding	0						2,001						2,300



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Expenditure Account	2016 Actual		2017 Actual		2018 Actual		2019 Budget		Budget	Notes	2021 Budget	2022 Budget
	12/31/16	12/31/17	12/31/18	Actual	Budget	Actual	Budget					
Aq Svc - Improv - Tradeshow - Subscriptions &	0	0	0	0	0	0	0	0	0	0	0	0
Aq Svc - Improv - Tradeshow - Other Professor	21,475	26,261	23,995	26,782	28,000	28,000	28,000	28,000	Entertainment, helping hands, draping, pelting etc.	28,868	29,763	
Aq Svc - Improv - Tradeshow - Vehicle Charge	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - Equipment Reps	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - Vehicle Repairs	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - Building Rental	5,250	5,410	5,200	4,000	5,500	5,500	5,500	4,000	same # days as 2019	4,124	4,252	
Aq Svc - Improv - Tradeshow - Equipment & Fu	250	906	1,250	906	250	250	250	1,250	enclosed trailer 800 ATM 250 pallet fo	1,269	1,329	
Aq Svc - Improv - Tradeshow - Licenses & Perm	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - Damage Claims	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - Other Miscellane	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - Stationery Suppl	0	26	0	13	0	0	0	25	helping hands tshirts & gloves for staff	26	27	
Aq Svc - Improv - Tradeshow - Clothing & Foot	0	0	0	0	0	0	0	350	sweeping compound	361	372	
Aq Svc - Improv - Tradeshow - Janitorial Suppl	11	16	0	0	0	0	0	100	breakfast & donuts based on 2019	103	106	
Aq Svc - Improv - Tradeshow - Consumable & E	1,955	1,958	2,472	3,520	2,500	2,500	2,500	3,500	banquet	3,609	3,720	
Aq Svc - Improv - Tradeshow - Catered or Prep	4,429	3,949	6,444	6,037	6,500	6,500	6,500	6,500	ornamentals, door prizes, ribbons etc.	6,702	6,909	
Aq Svc - Improv - Tradeshow - Safety Supplies	0	40	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - General Supplie	4,464	5,074	3,879	2,582	5,000	5,000	5,000	4,000	booth refund allowance	4,124	4,262	
Aq Svc - Improv - Tradeshow - Fuel	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - Equipment, Mac	130	1,305	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - Consumable To	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - Other Construc	617	76	0	0	0	0	0	50	screws, staples, etc.	52	53	
Aq Svc - Improv - Tradeshow - Signage	0	363	0	98	0	0	0	150	update signage	155	159	
Aq Svc - Improv - Tradeshow - Other Constr & I	36	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improv - Tradeshow - Exhibitors	0	100	325	0	0	0	0	500	0	516	531	
Aq Svc - Improv - Tradeshow - Amort Exp - Veh	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Tradeshow	74,721	84,396	76,772	83,046	89,294	89,294	89,294	88,009	0	91,908	98,661	
Aq Svc - Improvement - V.S.I. - Freight & Post	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - V.S.I. - Municipal Mem	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - V.S.I. - Other Profess	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - V.S.I. - Other municipa	43,900	65,300	49,500	62,500	65,300	65,300	65,300	65,300	VSI agreement	67,324	69,411	
Aq Svc - Improvement - V.S.I. - Grants	2,375	2,750	2,125	1,750	3,000	3,000	3,000	3,000	BSE testing \$125 each	3,093	3,189	
Aq Svc - Improvement - V.S.I.	46,275	68,050	51,625	64,250	68,300	68,300	68,300	68,300	0	70,417	72,600	
Aq Svc - Improvement - Demos - Seasonal	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - C.P.P.	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - E.I.	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Travel & Sub	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Freight & Pos	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Hospitality	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Advertising &	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Consultants	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Other Profess	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Building Rent	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Equipment &	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Stationery Su	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Safety Suppl	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Consumable	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Grounds	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos - Grants	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - Improvement - Demos	223,566	281,707	267,056	226,521	299,572	299,572	299,572	263,525	0	298,321	310,085	
Aq Svc - A.E.S.A. - Waages	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - A.E.S.A. - Employer Contributions	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - A.E.S.A. - Other Fees for Service	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - A.E.S.A. - Travel & Subsisence	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - A.E.S.A. - Freight & Postage	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - A.E.S.A. - Hospitality	0	0	0	0	0	0	0	0	0	0	0	
Aq Svc - A.E.S.A. - Other local governments	64,500	105,000	105,000	105,000	105,000	105,000	105,000	105,000	based on 2017-2019 6 muni partnership w PC	108,255	111,611	
Aq Svc - A.E.S.A. - Other municipal agencies	0	7,500	7,500	7,500	7,500	7,500	7,500	7,500	matching \$ for partnership PCBSA	7,733	7,972	
Aq Svc - A.E.S.A. - Grants	64,500	112,500	112,500	112,500	112,500	112,500	112,500	112,500	0	115,988	119,583	

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Expenditure Account	FUNCTION	2016		2017		2018		2019		Budget	Notes	2021 Budget	2022 Budget
		Actual 12/31/16	Actual 12/31/17	Actual 12/31/18	Actual 7/31/19	Actual 7/31/19							
	Aq Svc - Control - Crop Disease - Waqes	192	1,352	246	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Crop Disease - Employer Co	22	151	27	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Crop Disease - Freight & Po	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Crop Disease - Other Profes	120	46	-	-	-	-	175	175	175	fusarium testing	180	186
	Aq Svc - Control - Crop Disease - Other Misc. S	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Crop Disease - Other Gener	12	15	24	-	-	-	50	50	50	sanitary bottles for clubroot survey	52	53
	Aq Svc - Control - Crop Disease - Consumable	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Crop Disease - Chemicals &	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Crop Disease	346	1,563	296	-	-	-	225	225	225	-	232	239
	Aq Svc - Control - Livestock Predation - Waqes	1,901	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Livestock Predation - Emplo	624	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Livestock Predation - Trainin	0	-	-	-	-	-	-	-	-	Form 7 Training, not needed in 2020	-	-
	Aq Svc - Control - Livestock Predation - Travel	682	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Livestock Predation - Individ	500	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Livestock Predation - Advert	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Livestock Predation - Lenal	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Livestock Predation - Other	54,870	45,210	24,880	9,890	24,880	9,890	50,000	50,000	50,000	wolf policy 6307	50,000	50,000
	Aq Svc - Control - Livestock Predation - Stator	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Livestock Predation - Other	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Livestock Predation - Other	56,577	45,210	24,880	9,890	24,880	9,890	50,000	50,000	50,000	-	50,000	50,000
	Aq Svc - Control - Livestock Predation	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Beaver - Waqes	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Beaver - Employer Contribu	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Beaver - Hospitality	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Beaver - Professional	8,730	20,340	450	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Beaver - Repair/Maint Infrast	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Beaver - Other Miscellaneous	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Beaver - Other General Goo	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Beaver - Culverts	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Beaver - Other Construction	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Beaver	8,730	20,340	(450)	-	-	-	-	-	-	-	-	-
	Aq Svc - Pest Control - Insect Control - Waqes	0	722	164	-	-	-	-	-	-	-	-	-
	Aq Svc - Pest Control - Insect Control - Employ	0	80	18	-	-	-	-	-	-	-	-	-
	Aq Svc - Pest Control - Insect Control - Confere	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Pest Control - Insect Control - Chemi	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Waq	0	6,559	-	6,559	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Empla	0	715	-	715	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Traini	214	640	906	692	906	692	450	450	450	based on 2019 actual	722	744
	Aq Svc - Control - Vegetation - General - Travel	207	906	605	317	605	317	750	750	750	meals & travel if overnight for training	516	531
	Aq Svc - Control - Vegetation - General - Individ	700	1,150	605	317	605	317	750	750	750	lower course costs	516	531
	Aq Svc - Control - Vegetation - General - Freigh	160	53	79	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Telep	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Advert	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Subst	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Lenal	0	1,645	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Other	220	1,320	605	317	605	317	750	750	750	enforcement spraying (cost recovery)	10,310	10,630
	Aq Svc - Control - Vegetation - General - Equip	4,323	2,604	2,895	1,319	2,895	1,319	3,098	3,098	3,098	-	3,301	3,301
	Aq Svc - Control - Vegetation - General - Equip	0	373	-	-	-	-	2,350	2,350	2,350	-	-	-
	Aq Svc - Control - Vegetation - General - Equip	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Clothi	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Cater	76	93	88	674	88	674	-	-	-	miscoded s/b safety supplies	-	-
	Aq Svc - Control - Vegetation - General - Safet	1,421	2,910	157	146	157	146	400	400	400	500 tyvek suits & nitrile gloves	516	531
	Aq Svc - Control - Vegetation - General - Furni	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Other	180	802	197	12	197	12	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Fuel	0	120	88	-	88	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Equip	2,993	301	12	4,715	12	4,715	4,800	4,800	4,800	9,000 (505-19(100809)) 2 tablets side by side sprayer	9,279	9,567
	Aq Svc - Control - Vegetation - General - Cons	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Other	2,245	330	321	19	321	19	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Cheri	901	1,164	321	60	321	60	20,000	20,000	20,000	is water being coded here?	-	-
	Aq Svc - Control - Vegetation - General - Water	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - Capit	0	-	-	-	-	-	-	-	-	-	-	-
	Aq Svc - Control - Vegetation - General - To Op	0	-	-	-	-	-	-	-	-	-	-	-



Clear Hills County  
2019 Operating Expense Report  
As at: July 31, 2019  
And: December 31, 2018

Expenditure Account	FUNCTION	2016		2017		2018		2019		2020		2021		2022	
		Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Notes	Budget	Budget	Budget	Budget	
		12/31/16	12/31/17	12/31/18	7/31/19	12/31/18	7/31/19								
2-63-40-02-814	Ag Svc - Control - Vegetation - General - Chair	0	0	5,440	15,228	43,248	21,700								
2-63-40-10-11*	Ag Svc - Control - Vegetation - General	13,640	15,212												#VALUE!
2-63-40-10-13*	Ag Svc - Control - Vegetation - Brush - Waages	183	191												
2-63-40-10-239	Ag Svc - Control - Vegetation - Brush - Employ	21	21												
2-63-40-10-243	Ag Svc - Control - Vegetation - Brush - Other C	0	663												
2-63-40-10-523	Ag Svc - Control - Vegetation - Brush - Equipm	0	0												
2-63-40-10-531	Ag Svc - Control - Vegetation - Brush - Equipm	0	0												
2-63-40-10-539	Ag Svc - Control - Vegetation - Brush - Chemi	0	0												2,557
2-63-40-10-539	Ag Svc - Control - Vegetation - Brush - Other C	204	895												2,578
2-63-40-30-11*	Ag Svc - Control - Vegetation - Shoulder - Wag	15,976	26,781	13,238	3,639										
2-63-40-30-13*	Ag Svc - Control - Vegetation - Shoulder - Emcl	1,829	2,962	1,440	408										
2-63-40-30-215	Ag Svc - Control - Vegetation - Shoulder - Emcl	0	442	31											
2-63-40-30-217	Ag Svc - Control - Vegetation - Shoulder - Tele	0	908												
2-63-40-30-243	Ag Svc - Control - Vegetation - Shoulder - Other	6,413	0												
2-63-40-30-253	Ag Svc - Control - Vegetation - Shoulder - Equi	0	0												
2-63-40-30-517	Ag Svc - Control - Vegetation - Shoulder - Equi	0	272												
2-63-40-30-519	Ag Svc - Control - Vegetation - Shoulder - Safe	0	558	1,457	66										
2-63-40-30-523	Ag Svc - Control - Vegetation - Shoulder - Equi	0	0												619
2-63-40-30-524	Ag Svc - Control - Vegetation - Shoulder - Equi	0	0												103
2-63-40-30-531	Ag Svc - Control - Vegetation - Shoulder - Cher	9,496	36,252	3,926	3,089	5,000	7,550								15,944
2-63-50-02-11*	Ag Svc - Control - Weed Insp - General - Emcl	47,557	54,358	20,083	7,389	20,083	15,700								16,688
2-63-50-02-148	Ag Svc - Control - Weed Insp - General - Emcl	3,184	7,576	6,674	8,938	25,533	50,798								16,187
2-63-50-02-211	Ag Svc - Control - Weed Insp - General - Traini	340	885	708	895	6,186	46,385								
2-63-50-02-214	Ag Svc - Control - Weed Insp - General - Travel	1,985	0	666	857	1,276	1,000								
2-63-50-02-215	Ag Svc - Control - Weed Insp - General - Individ	0	0												
2-63-50-02-216	Ag Svc - Control - Weed Insp - General - Freigh	45	70	105	93										
2-63-50-02-217	Ag Svc - Control - Weed Insp - General - Intern	0	0												
2-63-50-02-219	Ag Svc - Control - Weed Insp - General - Telep	3,511	1,892	381	13	625	1,000								1,031
2-63-50-02-221	Ag Svc - Control - Weed Insp - General - Hosp	0	0												
2-63-50-02-222	Ag Svc - Control - Weed Insp - General - Advet	110	254												
2-63-50-02-223	Ag Svc - Control - Weed Insp - General - Pirith	180	0												
2-63-50-02-239	Ag Svc - Control - Weed Insp - General - Sub	95	562	233	108	570	215								570
2-63-50-02-245	Ag Svc - Control - Weed Insp - General - Other	600	1,613	1,160	1,813	5,000	2,000								2,126
2-63-50-02-253	Ag Svc - Control - Weed Insp - General - Vehic	3,869	7,998	9,016	2,822	10,030	10,030								10,661
2-63-50-02-265	Ag Svc - Control - Weed Insp - General - Equit	0	225												
2-63-50-02-274	Ag Svc - Control - Weed Insp - General - Vehic	47	277	250	209										
2-63-50-02-511	Ag Svc - Control - Weed Insp - General - Statio	0	144		203										
2-63-50-02-514	Ag Svc - Control - Weed Insp - General - Cons	0	0												
2-63-50-02-515	Ag Svc - Control - Weed Insp - General - Cater	379	240		78										
2-63-50-02-517	Ag Svc - Control - Weed Insp - General - Safet	964	341	197	421										
2-63-50-02-518	Ag Svc - Control - Weed Insp - General - Furnit	207	5,781	298	412										
2-63-50-02-521	Ag Svc - Control - Weed Insp - General - Gas	0	0												
2-63-50-02-522	Ag Svc - Control - Weed Insp - General - Gas	138	1,278												
2-63-50-02-524	Ag Svc - Control - Weed Insp - General - Gas	0	0												
2-63-50-02-529	Ag Svc - Control - Weed Insp - General - Cons	3,812	2,671												
2-63-50-02-531	Ag Svc - Control - Weed Insp - General - Other	10,997	0												
2-63-50-02-762	Ag Svc - Control - Weed Insp - General - To Ce	0	0												
2-63-50-02-785	Ag Svc - Control - Weed Insp - General - Amor	0	0												
2-63-50-20-11*	Ag Svc - Control - Weed Insp - White Zone - W	30,463	31,313	20,182	18,349	69,911	5,829								17,199
2-63-50-20-13*	Ag Svc - Control - Weed Insp - White Zone - W	35,623	33,733	26,893	18,639	25,000	27,000								30,970
2-63-50-20-211	Ag Svc - Control - Weed Insp - White Zone - Ei	3,522	3,718	2,900	2,065	2,400	2,900								3,326
2-63-50-20-217	Ag Svc - Control - Weed Insp - White Zone - Tr	0	34												
2-63-50-20-239	Ag Svc - Control - Weed Insp - White Zone - Te	0	75		25										
2-63-50-20-517	Ag Svc - Control - Weed Insp - White Zone - O	0	0												
2-63-50-20-519	Ag Svc - Control - Weed Insp - White Zone - S	0	0												

Clear Hills County  
 2019 Operating Expense Report  
 As at: July 31, 2019  
 And: December 31, 2018

Expenditure Account	FUNCTION	2016		2017		2018		2019		2020 Budget	Notes	2021 Budget	2022 Budget
		Actual 12/31/16	Actual 12/31/17	Actual 12/31/18	Actual 7/31/19	Budget	Budget						
2-63-50-20-519	Aq Svc - Control - Weed Insp - White Zone - O	0	0	-	-	-	-	-	-	-	-	-	-
2-63-50-20-523	Aq Svc - Control - Weed Insp - White Zone - E	0	0	-	-	-	-	-	-	-	-	-	-
2-63-50-20-524	Aq Svc - Control - Weed Insp - White Zone - C	0	0	-	-	-	-	-	-	-	-	-	-
2-63-50-20-528	Aq Svc - Control - Weed Insp - White Zone - O	0	0	-	-	-	-	-	-	-	-	-	-
2-63-50-20-531	Aq Svc - Control - Weed Insp - White Zone - C	0	0	-	-	-	-	-	-	-	-	-	-
2-63-50-30-11*	Aq Svc - Control - Weed Insp - White Zone	39,146	37,485	29,859	20,729	27,400	29,900	27,400	29,900	no areenzone 2019 due to high moist	32,023	34,297	
2-63-50-30-13*	Aq Svc - Control - Weed Insp - Green Zone - W	11,185	9,926	5,827	121	10,000	10,000	10,000	10,000		10,710	11,470	
2-63-50-30-211	Aq Svc - Control - Weed Insp - Green Zone - E	1,254	1,104	626	13	1,000	1,000	1,000	1,000		1,071	1,147	
2-63-50-30-239	Aq Svc - Control - Weed Insp - Green Zone - T	3,688	2,692	-	-	3,000	3,000	3,000	3,000		3,093	3,189	
2-63-50-30-263	Aq Svc - Control - Weed Insp - Green Zone - O	1,125	-	-	-	5,000	5,000	5,000	5,000		5,155	5,315	
2-63-50-30-265	Aq Svc - Control - Weed Insp - Green Zone - E	0	0	-	-	-	-	-	-		-	-	
2-63-50-30-514	Aq Svc - Control - Weed Insp - Green Zone - V	480	-	-	-	-	-	-	-		-	-	
2-63-50-30-515	Aq Svc - Control - Weed Insp - Green Zone - C	349	-	-	-	-	-	-	-		-	-	
2-63-50-30-517	Aq Svc - Control - Weed Insp - Green Zone - S	0	188	-	-	-	-	-	-		-	-	
2-63-50-30-521	Aq Svc - Control - Weed Insp - Green Zone - G	0	-	-	-	-	-	-	-		-	-	
2-63-50-30-524	Aq Svc - Control - Weed Insp - Green Zone - C	0	-	-	-	-	-	-	-		-	-	
	Ag Svc - Control - Weed Insp - Green Zone	18,080	13,900	6,452	134	19,000	19,000	19,000	19,000		20,029	21,121	
	Ag Svc - Control - Weed Inspection	87,689	82,698	56,493	39,212	116,311	54,729	116,311	54,729		69,071	72,616	
	Ag Svc - Control	202,699	204,169	106,752	71,720	217,334	144,854	217,334	144,854		#VALUE!	#VALUE!	
	<b>Agricultural Services</b>	890,975	903,045	756,599	527,778	1,026,474	806,277	1,026,474	806,277		#VALUE!	#VALUE!	

# Clear Hills County

## Request For Decision (RFD)

Meeting:	<b>Agricultural Service Board Meeting</b>
Meeting Date:	October 15, 2019
Originated By:	Greg Coon, Agricultural Fieldman
Title:	<b>BOARD REPORTS</b>
File No:	63-10-02

### DESCRIPTION:

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

### BACKGROUND / PROPOSAL:

### ATTACHMENTS:

•

### RECOMMENDED ACTION:

RESOLUTION by \_\_\_\_\_ that this Agricultural Service Board accepts the Board members' written or verbal reports of October 15, 2019 for information.

Initials show support - Reviewed by: 29 Manager: *ABj* AgFieldman: *GC*

# Clear Hills County Request For Decision (RFD)

Meeting:	Agricultural Service Board
Meeting Date:	October 15, 2019
Originated By:	Greg Coon, Agricultural Fieldman
Title:	<b>EVENTS</b>
File:	63-10-02

## DESCRIPTION:

The Board is presented with events for their consideration.

## BACKGROUND:

- Member Ross requested this event be added to the agenda. Agritechnica on November 12-16, 2019 in Hanover, Germany.
- Get Dirt on Soil Health Workshop being held on Thursday, November 14, 2019 at the Rycroft Ag Society Hall.

Note: Council has adopted a revised ASB Bylaw 246-19. The Bylaw is attached to the CDM's report. Section 8 of the new bylaw provides parameters for event attendance by board members.

## ATTACHMENTS:

- Get Dirt on Soil Health Poster
- October/November/December calendars

## RECOMMENDED ACTION:

RESOLUTION by... that this Agricultural Service Board accept for information the discussion around Agricultural Service Board events.

<b>Initials show support - Reviewed by:</b> Manager: <i>ABj</i>	AgFieldman: <i>GC</i>
---	-----------------------



# Get the Dirt on Soil Health

Prepare to get dirty with Dr. Kris Nichols

Soil Health is Critical - Are You Doing Everything Possible to Build and Manage It?  
*Explore how what happens above ground affects what happens below ground*



Learn how to:

Sequester more carbon

Reduce your inputs

Make the most of your rainfall

Grow healthier food

**Thursday November 14**

10:00 am - 4:00 pm

Rycroft Ag Society Hall, Rycroft

**Friday November 15**

10:00 am - 4:00 pm

Triangle Hall, High Prairie

\$50 for PCBFA members, \$80 for PCBFA member pair  
\$70 for non-members, \$120 for non-member pair includes lunch

Call Katie 780-835-6799 ext 3

email [info@pcbfa.ca](mailto:info@pcbfa.ca) or visit [peacecountrybeef.ca](http://peacecountrybeef.ca)

Bring a ziplock bag with a little topsoil from your farm and something heavy (like a book) to use for a weight



Funded by:

Alberta



# October 2019

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
		1	2	3	4	5
6	7	8 Council	9	10	11	12
13	14 Thanksgiving  County office Closed	15 ASB Mtg.	16	17	18	19
20	21	22 Council	23	24	25	26
27	28	29 Regional ASB Conference	30	31 Halloween		

October 29<sup>th</sup> – Regional ASB Conference at the St. Isidore Cultural Centre

**Legend:**

- BH – Brian Harcourt
- BR – Baldur Ruecker
- MR – MacKay Ross
- GC – Garry Candy
- JW – Julie Watchorn
- DJ – David Janzen
- All – All available members

# November 2019

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
					1	2
3	4	5	6	7	8	9
10	11 Remembrance Day  County office Closed	12 Council mtg	13	14 Get Dirt on Soil Health	15	16
17	18	19 ASB Organizational Meeting & Regular ASB mtg	20	21	22	23
24	25	26 Council meeting	27	28		

November 14<sup>th</sup> – Get Dirt on Soil Health at the Rycroft Ag Society Hall

<b>Legend:</b>
BH – Brian Harcourt
BR – Baldur Ruecker
MR – MacKay Ross
GC – Garry Candy
JW – Julie Watchorn
DJ – David Janzen
All – All available members

# December 2019

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
1	2	3 The Farm Forum	4	5	6	7
8	9	10 Council Meeting Western Canadian Conference MR, JW, GC	11 Prairie Cereals Conference DJ BR	12	13	14
15	16	17 ASB Meeting	18	19	20	21
22	23	24 Christmas Eve	25 Christmas Day	26 Boxing Day	27	28
29	30	31 New Year's Eve				

December 10<sup>th</sup> – 12<sup>th</sup> – Western Canadian Soil Health Conference in Edmonton, Alberta  
**RESCINDED**

December 11<sup>th</sup> – 12<sup>th</sup> - Prairie Cereals Conference at the Fairmont Banff Hotel in Banff, Alberta. **RESCINDED**

**Legend:**

- BH – Brian Harcourt
- BR – Baldur Ruecker
- MR – MacKay Ross
- GC – Garry Candy
- JW – Julie Watchorn
- DJ – David Janzen
- All – All available members

# Clear Hills County

## Request For Decision (RFD)

Meeting:	<b>Agricultural Service Board</b>
Meeting Date:	October 15, 2019
Originated By:	Greg Coon, Agricultural Fieldman
Title:	<b>VSI PROGRAM</b>
File:	63-10-40

### DESCRIPTION:

Annually the Board reviews the Veterinary Services Inc. (VSI) Program. Any proposed changes are then forwarded to the VSI administrator for consideration at the VSI Annual General Meeting that is held each November.

### BACKGROUND:

The next annual general meeting is November 8, 2019 at the Peace River Legion. Councillor Janzen, as Council rep, is the designated County representative that attends the VSI meetings.

The Board has already sent a letter to VSI recommending they include mileage for veterinary herd health visit costs in the Agreement Schedule "A" (services payable by VSI).

AG85(05/07/19) RESOLUTION by Member Ross that this Agricultural Service Board request adding the following agenda item be added to the next Veterinary Services Incorporated (VSI) Annual General Meeting: Including mileage for veterinary herd health visit costs in the Agreement Schedule "A" (services payable by VSI). CARRIED.

### ATTACHMENTS:

- VSI agreement
- Annual General Meeting letter
- Clear Hills County Schedules A& B

### OPTIONS:

### RECOMMENDED ACTION:

RESOLUTION by \_\_\_\_\_ that this Agricultural Service Board authorize Councillor Janzen to attend the Veterinary Services Incorporated Annual General meeting being held on November 8, 2019 at the Peace River Legion.

Initials show support - Reviewed by:

Manager:

AF:

This agreement made effective as of January 1, 2019.

Between

V.S.I. SERVICES (1980) LTD.

A body corporate under the laws of the Province of Alberta (hereinafter called "V.S.I.")

and

Clear Hills County in the Province of Alberta, representing the district ratepayers (hereinafter called the "Municipal Jurisdiction").

Whereas the parties hereto are parties to an agreement in writing dated January 1, 2018 (hereinafter referred to as the "agreement"); and

Whereas the agreement, by its terms, is deemed to terminate on December 31, 2018; and

Whereas the parties hereto desire to continue the agreement in full force and effect for the period from January 1, 2019 to December 31, 2019.

Now therefore this agreement witnesses that in consideration of the premises and the covenants hereafter contained:

1. The agreement shall be deemed to continue in full force and effect for the period from January 1, 2019 to December 31, 2019 and all references to any date or dates in the agreement and the term of its termination shall be amended accordingly.
2. Schedule "A" **50/50** and Schedule "B" to the agreement shall be dated effective January 1, 2019.
3. The Municipal Jurisdiction agrees to provide V.S.I. with the funds necessary to implement, administer and carry out the Veterinary Health Program until this agreement is terminated. The Municipal Jurisdiction agrees to advance the sum of

**SIXTY-ONE THOUSAND (\$61,000.00) DOLLARS**

to establish the Veterinary Health Program in the Jurisdiction for the 2019 calendar year.

...2

The parties agree to observe and perform all other terms, covenants, conditions and provisions on the part of each of them respectively contained in the agreement subject only to the amendments contained herein.

V.S.I. SERVICES (1980) LTD.

Per \_\_\_\_\_  
Rik Vandekerkhove

Signed, sealed and delivered  
in the presence of:

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Clear Hills County

September 22, 2019

Mr. Allan Rowe, CAO

Clear Hills County

Box 240, Worsley, AB , T0H 3W0

Dear Allan,

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This email is to inform you of the upcoming **Annual General Meeting (AGM)** of V.S.I. Services (1980) Ltd. It will be held on **Friday November 8, 2019 at 10.00 a.m.** in the **Peace River Legion – 10103-101 St, Peace River**

At the same time, I would like you to confirm your representative, and possibly an alternate, to attend this meeting on your behalf. Currently I have Mr. Brian Harcourt as your representative, with no alternate.

After receiving confirmation, I will mail your representative and yourself the required documents to allow full participation in the AGM meeting.

Sincerely,

Rik Vandekerkhove DVM

Manager

cc. Greg Coon

Sarah Hayward



**CLEAR HILLS COUNTY**

Until this Tariff is amended, and subject to the terms and conditions of the year 2019 contract, VSI Services (1980) Ltd. will pay the listed VSI fee charged by the veterinarian for the services stated herein. All other charges levied in association with the service(s) being claimed must be shown on the invoice.

Note: Unless otherwise noted all **flat rate and hourly fees** are fully **inclusive** which means the **fee includes local anaesthetic procedures** (including the drugs), **surgical packs, suture materials, stitch removal and all drug administration procedures.**

**CATTLE**

**A. Ancillary (add-on) Services**

SERVICE	VSI Code	Maximum Fee	50% VSI fee	50% CLIENT fee
Clinic Outpatient Fee	9	45.10	22.55	22.55

Note: This fee can **only** be **claimed** in conjunction **with another** valid **VSI claim**. It can only be charged once per occurrence. It is **not** a **per animal** fee.

Epidural	1	35.10	17.55	17.55
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Note: **Epidurals** can **only** be **claimed** in conjunction **with dystocias** (code 31), **embryotomies** (code 44 & 45) & **prolapse revisits** under code 52.

Intramuscular or Subcutaneous Injections	3	6.30	3.15	3.15
Intravenous Injections	4	12.60	6.30	6.30
Stall Fee (calves - per 24 hr.)	10	32.50	16.25	16.25
Stall Fee (older animals -per day)	11	49.40	24.70	24.70
Oral Drug Administration	5	35.10	17.55	17.55
Subconjunctival injection	7	12.60	6.30	6.30

Note: Codes 3, 4, 5 & 7 can **only** be **claimed once per animal** and only in conjunction with a code 26, 27, 50, 51, or 52 claim.

X-ray (2 views)	2	144.30	72.15	72.15
X-ray (subsequent views - each)	21	30.00	15.00	15.00
X-ray – Digital Equipment Surcharge	8	40.40	20.20	20.20

Note: Please be judicious in taking x-rays in situations where the x-ray won't add to the diagnosis or alter the course of treatment (e.g. most cases of broken legs in calves).

**B. Flat Rate Inclusive Surgical Procedures**

SERVICE	VSI Code	Maximum Fee	50% VSI fee	50% CLIENT fee
Abscesses	28	185.70	92.85	92.85
Claw Amputation	17	266.10	133.05	133.05
Epididymectomy	20	285.50	142.75	142.75
Eye Enucleation	16	397.30	198.65	198.65
LDA (Left Displaced Abomasum)	22	462.30	231.15	231.15
Omphalitis – Intra-abdominal debridement	35	277.60	138.80	138.80

Note: For superficial procedures with minimal debridement use code 28

RDA (Right Displaced Abomasum)	23	515.90	257.95	257.95
Rumen Fistula	24	186.80	93.40	93.40
Sole Abscess	29	143.30	71.65	71.65
Torsion (abomasal or intestinal – calves < 200#)	14	293.90	146.95	146.95
Umbilical Hernia (eviscerated in newborn calve)	18	293.90	146.95	146.95
Urethrostomy	15	231.90	115.95	115.95
Vasectomy	19	313.30	156.65	156.65

**C. Flat Rate Obstetrical and Reproductive Services**

Note: **Oxytocin** and/or **uterine boluses** are **included** in **all** obstetrical procedures.

SERVICE	VSI Code	Maximum Fee	50% VSI fee	50% CLIENT fee
Caesarean Section	41	530.00	265.00	265.00
Dystocia	31	240.40	120.20	120.20
Embryotomy (1 or 2 cuts)	44	359.00	179.50	179.50
Embryotomy (3 or more cuts)	45	424.00	212.00	212.00

Note: Code #1 (epidural) can be added, as appropriate, with codes 31, 44, 45 & 52.

Scrotal Circumference Measurement	65	24.70	12.35	12.35
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Note: This fee **only** applies for **bulls eliminated** from further breeding soundness evaluations.

Semen Test (1 <sup>st</sup> bull)	60	106.00	53.00	53.00
Semen Test (2 <sup>nd</sup> to 10 <sup>th</sup> bull)	61	75.00	37.50	37.50 each
Semen Test (11 <sup>th</sup> to 50 <sup>th</sup> bull)	62	68.40	34.20	34.20 each
Semen Test (51 <sup>st</sup> bull plus)	63	61.90	30.95	30.95 each

Pregnancy Testing (per head)	6	5.40	2.70	2.70 each
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Note: A higher fee can be charged for the first animal as per the AB.VMA fee schedule but VSI will only pay the VSI rate for the first animal.

**Prolapses**

-Rectal	74	124.90	62.45	62.45
- Uterine	71	237.20	118.60	118.60
-Vaginal	81	162.20	81.10	81.10
-Vaginal & Rectal	84	186.80	93.40	93.40
Uterine Torsion (manual correction)	46	261.90	130.95	130.95

**D. Hourly Rates for Surgical & Professional Services**

Note: **Rates** are quoted for **1/4 hour (15 minute) intervals**. -- **All of the services in this section are fully inclusive** and an hourly rate can't be used for services for which a flat rate fee has been established.

Code **12A/12B** or **13A/13B** claims **CAN'T EXCEED 1½ hours** (parts A & B combined)

SERVICE	VSI Code	Maximum Fee	50% VSI fee	50% CLIENT fee
Surgery (major)	12A	93.40	46.70	46.70
Non Surgical Professional time	12B	56.20	28.10	28.10
Surgery (minor)	13A	63.00	31.50	31.50
Non Surgical Professional time	13B	56.20	28.10	28.10

Note: Only the actual surgical time should be claimed under codes 12 & 13. Time required for related services, e.g. examination, surgical preparation, immediate post surgical treatments, etc. should be claimed under codes 12B or 13B.

Professional Services (general)	25	56.20	28.10	28.10
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Note: This fee is used:

- a) For **herd** health visitations and/or **problems**
- b) In place of codes 50, 51, 52 & 55 **as specified in section "E"**
- c) When **more than two postmortems** are conducted
- d) When a single animal is examined, euthanized then subjected to a postmortem
- e) Other instances as agreed to or recommended by the VSI Manager

Time claimed for codes 12, 13 & 25 should be consistent with time required by a veterinarian of **average competence**.

**E. Flat Rate Non-Surgical Professional Services**

SERVICE	VSI Code	Maximum fee	50% VSI fee	50% CLIENT fee
Cast Application (closed reduction)	26	131.20	65.60	65.60
Cast Removal	27	61.90	30.95	30.95
Examination	50	106.00	53.00	53.00
Examination (2 <sup>nd</sup> animal)	51	72.40	36.20	36.20
Examination (re-visit)	52	72.40	36.20	36.20
Next 24 hr IV hook-up + monitor (NEW)	53	72.40	36.20	36.20
I.V. Hook - up (1 <sup>st</sup> & 2 <sup>nd</sup> no monitor)	55	118.60	59.30	59.30

Note: **This code includes** the **examination** and is for situations where the animal is not hospitalized for follow-up care.

I.V. Hook - up + 24 hour monitor	56	185.70	92.85	92.85
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Note: **Only** for calves up to **two months old**. It **includes** the **exam** and **professional services** for the **first 24 hours**. **Code 53** should be **used** to cover professional services in **subsequent 24 hour periods**.

Services normally covered by codes 50, 51, 52 & 55 will be claimed under code 25 in the following situations:

- a) When more than two (2) claims are made using any combination of codes 50, 51, 52 & 55 or
- b) When one or more specific flat rate codes are claimed which are equal or greater in value to two (2) code 50 claims

Postmortem - Brain Removal	99	70.30	35.15	35.15
Postmortem - 300 pounds or less	90	111.30	55.65	55.65
Postmortem - 300 to 800 pounds	91	120.70	60.35	60.35
Postmortem - over 800 pounds	92	181.60	90.80	90.80

Note: For **more than 2** postmortems at the **same time** make a **single code 25 claim**.

Technovit Block - Application of	30	92.90	46.45	46.45
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Note: **Materials** are **included** in this service

**PIGS**  
**All Services**

Note: With the exception of the following pig services are to be billed by the hour under codes 12, 13, or 25, as appropriate:

SERVICE	VSI Code	Maximum Fee	50% VSI fee	50% CLIENT fee
Examination	50	106.00	53.00	53.00
Examination (2 <sup>nd</sup> animal)	51	72.40	36.20	36.20
Examination (re-visit)	52	72.40	36.20	36.20

Note: Codes 3, 4 & 5 can be claimed with codes 50, 51 & 52, as appropriate

Postmortem - 20 pounds or less	93	75.00	37.50	37.50
Postmortem - 20 to 100 pounds	94	80.30	40.15	40.15
Postmortem - over 100 pounds	95	98.10	49.05	49.05

Note: For **more than 2** postmortems at the **same time** make a **single code 25 claim**.

**SHEEP & GOATS**  
All Services

Note: Most sheep and goat services can be billed by the hour under codes 12, 13, or 25, as appropriate, with the exception of the specific flat rate codes in this section:

All of the sheep codes are inclusive with the exception of codes 33, 50, 51 & 52 where the same conditions apply as for cattle.

Oxytocin and/or uterine boluses are included in all obstetrical procedures.

SERVICE	VSI Code	Maximum Fee	50% VSI fee	50% CLIENT fee
Caesarean	43	336.30	168.15	168.15
Dystocia	33	149.60	74.80	74.80
Examination	50	106.00	53.00	53.00
Examination (2 <sup>nd</sup> animal)	51	72.40	36.20	36.20
Examination (re-visit)	52	72.40	36.20	36.20

Note: Codes 3, 4 & 5 can be claimed with codes 26, 27, 50, 51 & 52, as appropriate.

Semen Test (1 <sup>st</sup> animal)	66	89.80	44.90	44.90
Semen Test (subsequent animals)	67	68.20	34.10	34.10
Postmortem - 20 pounds or less	96	75.00	37.50	37.50
Postmortem - 20 to 100 pounds	97	80.30	40.15	40.15
Postmortem - over 100 pounds	98	98.10	49.05	49.05

Note: For more than 2 postmortems at the same time make a single code 25 claim.

Prolapse - Rectal	76	106.00	53.00	53.00
Prolapse - Uterine	73	154.80	77.40	77.40
Prolapse - Vaginal	83	106.00	53.00	53.00

**ELK & BISON**  
All Services

Note: The only services covered for elk & bison are pregnancy tests, semen tests and postmortems. Pregnancy & Semen tests can be charged at the flat rates for cattle or by the hour under code 25

Assuming that the hourly rate will only be used when the flat rate is not adequate you are asked to consider whether the extra amount is justified due to the inherent difficulty in working with these species or whether it is due to poor facilities or inadequate help. If the problem is poor facilities or poor help then the producer should assume 100% of the extra fees.

The following codes apply to postmortems for elk & bison:

SERVICE	VSI Code	Maximum Fee	50% VSI fee	50% CLIENT fee
Postmortem - Brain Removal	99	70.30	35.15	35.15
Postmortem - 300 pounds or less	90	111.30	55.65	55.65
Postmortem - 300 to 800 pounds	91	120.70	60.35	60.35
Postmortem - over 800 pounds	92	181.60	90.80	90.80

Note: For more than 2 postmortems at the same time make a single code 25 claim

## V.S.I. SERVICES (1980) LTD.

### SCHEDULE "B"

Annexed to and forming a part of the agreement dated **effective January 1, 2019**

Following are some of the services not payable by V.S.I. Services (1980) Ltd

- a) castrations
- b) dehorning
- c) dockings
- d) spaying heifers
- e) embryo transplants
- f) routine trimming of feet
- g) meat inspection
- h) scrotal hernias - all species
- i) umbilical hernias - all species
  - Note: With the exception of eviscerated hernias in newborn calves
- j) cryptorchid surgery- all species
- k) insurance examinations (including mortality, loss of use exams & reports)
- l) listed herd and dispersal sales
- m) shows & sales
- n) endorsement fees
- o) export testing
- p) parentage sampling
- q) routine vaccinations
- r) all drugs and medicines
- s) all laboratory fees
- t) waiting time
- u) after hours or holiday fees
- v) mileage
- w) services relating to quality assurance programs such as CQA & QSH.
- x) internal fracture fixation procedures
- y) hospitalization for any **service not listed in Schedule "A"**
- z) Services under codes 12A/B & 13A/B over & above 1½ hours
- aa) Exams for non-conventional treatments and those treatments. (Examples: adjustments, acupuncture etc )
- ab) **VCPR consultations for a period longer than 2 units of code #25**

All "Schedule A" services for species not specifically identified on "Schedule A"

Note: All jurisdictions cover "Schedule A" services for the bovine, porcine, caprine and ovine species. Some jurisdictions cover some, or all, "Schedule A" services for alternative livestock species (e.g. elk, bison, deer, etc.). The specific species and services covered will be identified on the "Schedule A" that was approved by that particular jurisdiction.

Any other veterinary services not specifically listed in Schedule "A" as amended from time to time.



# Clear Hills County Request For Decision (RFD)

Meeting:	Agricultural Service Board
Meeting Date:	October 15, 2019
Originated By:	Greg Coon, Agricultural Fieldman
Title:	<b>Zero Till Drill</b>
File:	63-10-02

## DESCRIPTION:

The Board is presented with costs for repairing the zero till drill.

## BACKGROUND:

The drill incurred damage while being transported. Initial costs to repair the damage due to the accident came to \$2,700.00. When changing all the damaged discs, it was discovered that many of the disc and coulter bearings and hubs were worn beyond repair. The cost to replace these additional parts is \$6,311.40 plus tax. This damage has occurred after only 1,860 acres of use.

## ATTACHMENTS:

- Quote from Douglas Lake Equipment for Discs and coulters
- Expense/Revenue sheet

## RECOMMENDED ACTION:

- Option 1: Recommend to Council to dispose of this item as is at public auction  
Option 2: Recommend to Council to repair this item

RESOLUTION by... that this Agricultural Service Board

Initials show support - Reviewed by: Manager:

*abj*

AgFieldman:

*GC*



Douglas Lake Equipment Limited Partnership  
 14250-100th Street, Grande Prairie, AB. T8V 7C7  
 Phone: (780) 532-5344 Fax:(780) 532-2457  
 Toll Free: 1-888-532-5344  
 www.douglaslakeequipment.com

Ship to: SAME AS BELOW

Invoice to: CLEARHILLS COUNTY  
 BOX 240  
 WORSLEY AB T0H 3W0

Branch 02 - Grande Prairie		
Date 10/09/2019	Time 16:19:15 (O)	Page 1
Account No. CLEAR001	Phone No. 7806853925	Estimate No. 003457
Ship Via		Purchase Order
		Salesperson MLA

ESTIMATE EXPIRY DATE: 10/09/2019  
 10/09/2019 RT0001

**PARTS ESTIMATE - NOT AN INVOICE**

Part#	Description	U	Qty	Price	Amount
7500187	Complete Coulte		18	120.26	2164.68
7500188	Complete Disc		36	111.02	3996.72
FRT	SHP & HAND		1	150.00	150.00

Subtotal: 6311.40

Tax: 315.57

TOTAL: 6626.97

Authorization: \_\_\_\_\_

# Zero Till Drill

Date Purchased: January 2011  
 Price of Equipment: \$57,750.00 (purchased from Houlders Farm Supply)  
 Depreciation: \$23,100.00

*This rental item is not to rent from local businesses.*

Revenue: \$12,750.00

Loss: \$1,175.48



Users:	
2011:	2
2012:	6
2013:	4
2014:	2
2015:	3
2016:	5
2017:	5
2018:	7
2019:	3
Total:	<u>37</u>

Expenses:			
2011:	Renter did not clean	\$	50.00
2012:	Parts & Maint.	\$	370.06
	Renter did not clean	\$	75.00
2013:	Parts	\$	58.72
	Renter misuse	\$	100.00
2014:	Parts	\$	477.45
	Renter Misuse	\$	136.75
2015:	Parts	\$	775.00
2016:	Parts	\$	774.02
2017:	Maint.	\$	1,224.80
2018:		\$	0.00
2019:	Maint/Repair	\$	9,883.68
	Total:		<u>\$13,925.48</u>

# Clear Hills County Request For Decision (RFD)

Meeting:	Agricultural Service Board
Meeting Date:	October 15, 2019
Originated By:	Audrey Bjorklund, Community Development Manager
Title:	<b>Community Development Manager's Report</b>
File:	63-10-02

## DESCRIPTION:

At this time the Community Development Manager will have the opportunity to report on matter of importance to the Board.

## BACKGROUND:

1. **Capital Budget Update:**  
C504-19(10-08-19) RESOLUTION by Councillor Bean to include \$32,000.00 in the 2020 Capital Budget for a second side by side, trailer and sprayer. CARRIED.
2. **Multi-Year Capital Plan**  
C503-19(10-08-19) RESOLUTION by Councillor Ruecker to move the \$25,000.00 for a replacement PTO water pump from 2020 to 2021 in the Multi-Year Capital Plan. CARRIED.
3. **Policy 1126 Per Diem Payment to Council and Board/Committee Members**  
Council has amended this policy with the addition of:
  - 4.0 Any per diems that have not been claimed within 60 days of the time they were earned will become invalid and will not be reimbursed.
4. **Policy 1127 Travel and Expense Policy**  
Council has amended this policy with the addition of:
  - 2.4 Any expenses that have not been submitted within 60 days of the date of the invoice or receipt will become invalid and will not be reimbursed.
5. **Bylaw No. 246-19 Establishing an Agricultural Service Board**  
Council has adopted a new ASB Bylaw, with the addition of:
  8. That, in addition to the regular meetings of the Agricultural Service Board, members may attend agricultural seminars, workshops and events within the Peace Region, the annual Peace Regional Agricultural Service Board Conference and, the annual Provincial Agricultural Service Board Conference.

## ATTACHMENTS:

- Policy 1126
- Policy 1127
- Bylaw 246-10

## RECOMMENDED ACTION:

RESOLUTION by... that this Agricultural Service Board to accept for information the Community Development Manager's report to October 15, 2019.

Initials show support - Reviewed by: **Manager:**

*ABj*

**AgFieldman:**

*ASC*



# Clear Hills County

Effective Date: **October 8, 2019**

Policy Number: **1126**

Title: **PER DIEM PAYMENT TO COUNCIL AND BOARD/COMMITTEE MEMBERS**

## 1. Policy Statement

1.1 Clear Hills County will establish a per diem rate to reimburse Council Members and Members at Large for attending board and committee meetings.

## 2. Definitions

2.1. Per Diem is the daily amount paid to a Councillor or Board Member for attending meetings of committees to which they are appointed, attending various other meetings that are specified in this policy's procedures, and attending special meetings that are duly authorized by Council.

## 3. Per Diems:

3.1 Per Diem will be paid at the rate of \$185.00 to Councillors for:

3.1.1. Conducting annual evaluations of the Chief Administrative Officer at a pre-approved meeting outside of a Regular or Special Council Meeting;

3.1.3. Board/Committee workshops and conferences for appointed Board Members only when attendance is authorized/approved by the Board/Committee and approved by Council;

3.1.4. County organized and authorized road tours or project inspections within Clear Hills County boundaries.

3.1.5. Attendance at Conferences and Zone Meetings authorized by Council.

3.1.6. Meetings with/or on behalf of residents and community groups to which attendance is authorized by Council resolution (this would include open houses and public meetings).

3.2. Per diems shall be paid for items listed in Section 3.1 when travel of 50 kilometers one way is required, up to a maximum of two meetings per day.

3.3 Per diems may be changed by review of Council and supported by 2/3 majority vote.

3.4 Annual cost of living adjustments will be applied to the per diem rates.

3.5 Meeting Rates (per diems) shall be paid after the submission of a valid claim form and verified and authorized by the Chief Administrative Officer.

3.6 Councillors will not be paid a per diem for attendance at:

- political party and constituency functions
- any other function usually considered to be a social or public function including but not limited to; barbeques, parties,



grand openings, golf tournaments, ribbon cutting ceremonies, graduation invites, cheque presentations, trade shows.

3.7 All other Board and Committee Members shall receive a per diem at the following rates:

<u>MEMBER</u>	<u>PER DIEM</u>
Agricultural Service Board:	\$185.00
Subdivision and Development Appeal Board:	\$185.00
Council Appointed Representatives on Committees/Boards:	\$185.00
Chair of Regular or Special Council Meetings	\$225.00

3.8 Council recognizes that as part of carrying out Council business it is essential to participate in activities such as conferences. The following conferences are considered pre-approved for Council attendance and will be paid at the rate per 3.1:

a) RMA Spring Conference	All Council
b) RMA Fall Conference	All Council
c) Spring & Fall RMA Zone Meetings	All Council
f) Federation of Canadian Municipalities	All Council

3.8.1 Administration will advise Councillors of the above conferences and upon receiving the completed registration form and instruction from Councillors, Administration will submit the registration form and make other travel and accommodation arrangements as deemed necessary.

3.9 When a representative from Council is sent by a Board or Committee to a conference or convention on behalf of that Board or Committee, the representative is then reimbursed by that Board or Committee.

3.9.1 Councillors and Board Members shall obtain approval from their respective Board and Council prior to attending seminars, workshops, conferences and all other functions if Council is being requested to fund attendance. The Councillor or Board Member must submit a written request on the benefit that would accrue to the County.

3.9.2 Council will not authorize any per diem payments after attendance when not in accordance with 3.7.1.

4.0 Any per diems that have not been claimed within 60 days of the time they were earned will become invalid and will not be reimbursed.

**4. Per Diem Claims**

- 4.1 All Council and Board/Committee per diem claims must be reviewed by Administration to ensure compliance with policy and shall indicate approval with the Chief Administrative Officer or designate signature. The Reeve will sign the per diem claim to indicate that they have been received.
- 4.2 The Deputy Reeve shall sign per diem claims submitted by the Reeve, to indicate it has been received, and may in the absence of the Reeve sign all other per diem claims.

**5. End of Policy**

<b><u>ADOPTED: Resolution C061(01/26/10)</u></b>	<b><u>Jan 26/10</u></b>
<b><u>AMENDED: Resolution C566(07/27/10)</u></b>	<b><u>Jul 27/10</u></b>
<b><u>AMENDED: Resolution C144(02/22/11)</u></b>	<b><u>Feb 22/11</u></b>
<b><u>AMENDED: Resolution C010-13(01/08/13)</u></b>	<b><u>Jan 08/13</u></b>
<b><u>AMENDED: Resolution C010-14(01/14/14)</u></b>	<b><u>Jan 14/14</u></b>
<b><u>AMENDED: Resolution C240-17(05/09/17)</u></b>	<b><u>May 09/17</u></b>
<b><u>AMENDED: Resolution C192-18(04/10/18)</u></b>	<b><u>April 10/18</u></b>
<b><u>AMENDED: Resolution C568-18(11/13/18)</u></b>	<b><u>Nov 13/18</u></b>
<b><u>AMENDED: Resolution C495-19(10/08/19)</u></b>	<b><u>Oct 8/19</u></b>

Schedule A To Policy 1126 – Per Diem Payment To Council and Committee Members

Member	2017	2018	2019
Agricultural Service Board	\$185.00	\$187.04	\$192.84
Subdivision and Development Appeal Board	\$185.00	\$187.04	\$192.84
Council Appointed Representatives on Committees/Boards	\$185.00	\$187.04	\$215.28 *
Chair of Regular or Special Council Meetings	\$225.00	\$227.48	\$261.83 *

\*12% increase per Council motion C568-18(11-13-18) RESOLUTION by Councilor Bean that Council increase the per diem payment to Council by 12% effective January 1, 2019 to alleviate the loss incurred by Council Members from the changes to the income tax treatment of Council remuneration. 2/3 majority vote required. CARRIED.



# Clear Hills County

Effective Date: **October 8, 2019**

Policy Number: **1127**

Title: **TRAVEL and EXPENSE POLICY**

## **1. Policy Statement**

- 1.1 Clear Hills County will provide for reimbursement to Council, Council Committee/Board Members and Staff for travel, meals, accommodations and subsistence expenses incurred during the performance of their duties.

## **2. Definitions**

- 2.1 Official Meetings will include:
- a) Regular Council meetings.
  - b) Special Council meetings.
  - c) Policy and Priorities meetings.
  - d) Board or Committee meetings as appointed.
  - e) Approved workshops and conferences for appointed Board Members or Staff.
  - f) Meetings with/or on behalf of residents and community groups to which attendance is authorized by Council resolution (this would include open houses and public meetings).
- 2.2 Mileage is a reimbursement of kilometers for travel expenses to a Councillor/Board/Committee Member, and Staff in their personal vehicle while attending an official meeting, or an event that Council has authorized attendance as per Policy 1126, section 3.4.
- 2.3 Reimbursement for overnight accommodation when approved to attend an official meeting, workshop or conference (receipts are required). If receipts are not available or if private accommodation is used, the subsistence is the reimbursement of the personal expense to a Councillor/Board/Committee Member and Staff while attending an official meeting. The following constitute as subsistence:
- a) Taxi, shuttle, air or bus fares;
  - b) Motel/Hotel;
  - c) Registration for any official meeting;
  - d) Personal Allowance which is paid for personal expenses when a Councillor/Board/Committee Member and Staff is required to spend the night for any official meeting; and the allowance is for each full 24 hour period. Such expenses include tips for luggage handling, wear and tear on personal luggage, local call charges by hotel, laundry, and dry cleaning.
  - e) Private accommodations.

- 2.4 Any expenses that have not been submitted within 60 days of the date of the invoice or receipt will become invalid and will not be reimbursed.

**3. Travel Reimbursements**

- 3.1 Councillors/Committee/Board Members and Staff shall be reimbursed for mileage and meals as per Sections 3 and 4 when attending approved meetings.
- 3.2 Councillors will not be reimbursed their expenses (including registration, meals, subsistence) or paid a personal allowance for attendance to social events or political party and constituency functions.
- 3.3 Where mode of travel is being considered, the most direct, economical and logical mode of travel shall be utilized.
- 3.4 Council and Board Members shall be reimbursed for mileage (for a minimum of 25 kilometers per meeting) for pre-approved meetings at the current Canada Revenue Agency's reasonable automobile allowance rates as shown on Schedule A. Staff shall be reimbursed for mileage at the current Canada Revenue Agency's reasonable automobile allowance rates as shown on Schedule A.
- 3.5 Travel must be directly related to the distance required to attend any conference, convention, seminar or any other meeting and to travel directly to and from that conference, convention, seminar or any other meeting.
- 3.6

**4. Meals and Subsistence**

- 4.1 The Council will review the rates for meals and subsistence annually during the annual budget preparations.
- 4.2 The Members and Staff shall be reimbursed for meals at the following rates, effective January 22, 2019:

<u>MEAL</u>	<u>REIMBURSEMENT</u>
Breakfast	\$20.00
Lunch	\$25.00
Dinner	<u>\$30.00</u>
	\$75.00

- 4.3 Any other claim for business meal reimbursement must include original receipt (and the name(s) of the person(s) accompanied).
- 4.4 The Members and Staff shall be reimbursed for subsistence at the following rates, effective January 28, 2014



SUBSISTENCE

Taxi, Shuttle, Air or Bus Fare  
Hotels/motels  
Registration  
Personal Allowance (includes phone calls)  
Private accommodations

REIMBURSEMENT

with receipts  
with receipts  
with receipts  
\$40.00per night/ 24 hr period  
\$90.00per night

4.5 Administration will reserve accommodations for Members using a County credit card. This card is for room confirmation only. Upon arrival at the accommodations, Members will be required to pay for their room and then submit a receipt for re-imbursement or an item on their expense claim, as a pre-paid expense.

4.6 Any claim for travel and subsistence, which is not supported by the appropriate supporting documents, will not be approved for payment. Attached receipts must be originals.

**5. Information Service Equipment**

5.1 Councillors will be responsible for supplying their own information service equipment and supplies e.g. Computer, printer/fax, paper, ink etc.

5.2 Councillors will be paid a monthly allowance for use of these items only if they have adequate equipment to receive agendas and all communications effectively and efficiently.

**Monthly Internet Reimbursement**- to a maximum of \$75.00 with receipt

**Monthly Information Service Equipment per Diem**- \$60.00

**6. Expense Claims**

6.1 The Reeve will sign the expense claim for Council Members to indicate that they have been received.

6.2 The Deputy Reeve shall sign the expense claim submitted by the Reeve, to indicate it has been received, and may in the absence of the Reeve sign all other expense claims

**End Of Policy**

**ADOPTED: Resolution C062(01/26/10)**

**Jan 26/10**

<b>AMENDED: Resolution C589(08/10/10)</b>	<b>Aug 10/10</b>
<b>AMENDED: Resolution C144(02/22/11)</b>	<b>Feb 22/11</b>
<b>AMENDED: Resolution C751-13(12/10/13)</b>	<b>Dec 10/13</b>
<b>AMENDED: Resolution C031-14(01/28/14)</b>	<b>Jan 28/14</b>
<b>AMENDED: Resolution C033-14(03/11/14)</b>	<b>March 11/14</b>
<b>AMENDED: Resolution C75-17(02/14/17)</b>	<b>Feb 14/17</b>
<b>AMENDED: Resolution C214-17(04/25/17)</b>	<b>April 25/17</b>
<b>AMENDED: Resolution C43-19(01/22/19)</b>	<b>Jan 22/19</b>
<b>AMENDED: Resolution C496-19(10/08/19)</b>	<b>Oct 8/19</b>

Schedule A to Policy 1127 – Travel and Expense

	2013-2018	2019
<b>Canada Revenue Agency's Current Automobile Allowance Rates:</b>	<b>\$0.54/Km</b>	<b>\$0.58/Km</b>

**BYLAW NO. 246-19**

**A BYLAW OF CLEAR HILLS COUNTY, IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ESTABLISHING AN AGRICULTURAL SERVICE BOARD.**

WHEREAS, the Agricultural Service Board Act empowers a Council to pass a bylaw to establish an Agricultural Service Board; and

WHEREAS, the Council of Clear Hills County has determined it is in the best interests of the county to pass such a bylaw.

NOW THEREFORE, the Council of Clear Hills County, in the Province of Alberta, duly assembled, hereby enacts as follows:

1. THAT, the Agricultural Service Board for Clear Hills County will be an independent committee consisting of five members at large, one Council member, one non-voting Alberta Agriculture, Food and Rural Development representative, and one non-voting Agricultural Fieldman. Four voting board members represents a quorum.
2. THAT, in the absence of the Agricultural Fieldman, the Community Development Manager or Acting Agricultural Fieldman will sit on the Agricultural Service Board as an alternate non-voting board member.
3. THAT, the Chair will be selected by the Agricultural Service Board members at the first or organizational meeting, with all voting board members eligible for the position.
4. THAT, the duration of the term for Agricultural Service Board members will be four (4) years, coinciding with the election of Council.
5. THAT, advertising for members at large will commence on or about August 15<sup>th</sup> prior to a general County election, conducted by Administration.
6. THAT, the selection of board members at large will occur during the organizational meeting of Council, and will be based on agricultural experience and agricultural community involvement of the board candidate.
7. THAT, the board candidate will be an agricultural producer residing within the boundaries of Clear Hills County at the time of selection and for the duration of the term of appointment, unless otherwise authorized by a resolution of council.

8. That, in addition to the regular meetings of the Agricultural Service Board, members may attend agricultural seminars, workshop and events within the Peace Region, the annual Peace Region Agricultural Service Board Conference and, the annual Provincial Agricultural Service Board Conference.
9. Bylaw No. 177-13 is hereby rescinded.
10. THAT, this bylaw shall come into force and effect upon the date of final reading hereof.

READ for a FIRST time this 8 day of October A.D., 2019.

READ for a SECOND time this 8 day of October A.D., 2019.

READ for a THIRD time this 8 day of October A.D., 2019.

  
\_\_\_\_\_  
Miron Croy, Reeve

  
\_\_\_\_\_  
Allan Rowe, Chief Administrative Officer



# Clear Hills County

## Request For Decision (RFD)

Meeting:	<b>Agricultural Service Board Meeting</b>
Meeting Date:	October 15, 2019
Originated By:	Greg Coon, Agricultural Fieldman
Title:	<b>AGRICULTURAL FIELDMAN REPORT</b>
File No:	63-10-02

### DESCRIPTION:

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

### BACKGROUND / PROPOSAL:

### ATTACHMENTS:

- Greg- Agricultural Fieldman Report-October 15, 2019

### RECOMMENDED ACTION:

RESOLUTION by \_\_\_\_\_ that the Agricultural Service Board accepts the October 15, 2019 Agricultural Fieldman report for information.

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

OCT. 15, 2019

PEST CONTROL

• **Wolves Claimed 2019 YTD:**

Total #	Total \$
32	\$11200.00

OTHER TOPICS

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- Clubroot and blackleg survey complete. No signs of either disease was found this year.
- The zero till drill is going to require another @ \$6500.00 in parts to complete the repair.
- Weed inspectors and sprayers were finished September 27th.
- Completed 711 field inspections this season. Issued notices on 12 agricultural properties and 6 industrial properties. Completed enforcement spraying on 5 agricultural properties and on 6 industrial properties.
- All sprayers have been cleaned and winterized for the season.
- Biggest Vegetable Contest was completed and results will be posted in newsletter.
- Rental waterpump hoses were all inspected and leaks repaired.
- Post pounder had a new fuel tank installed and hydraulic filter changed.

January 1 - October 4, 2019

Rental Equipment	Rental Deposit	Rental Rates	Total Users	Total Days	Total
<i>Backpack Sprayer</i>	\$ 50.00	\$ -	0	0	\$ -
<i>Bale Scale</i>	\$ 100.00	\$ 30.00	2	2	\$ 60.00
<i>BBQ Trailer</i>	\$ 100.00	\$ 50.00	8	8	\$ 300.00
<i>Chairs</i>	\$ 50.00	\$0.50/chair	11	15	\$ 852.00
<i>Community Centre</i>	\$ 50.00	\$ 50.00	6	6	\$ 300.00
<i>Corral Panels</i>	\$ 50.00	\$ 50.00	3	5	\$ 250.00
<i>Eco-Bran Applicator</i>	\$ 50.00	\$ -	1	1	\$ 50.00
<i>Exta Hoses</i>	\$ 50.00	\$1.000/hose	4	8	\$ 87.00
<i>Grain Bagger</i>	\$ 350.00	\$ 350.00	0	0	\$ -
<i>Grain Bag Roller</i>	\$ 50.00	\$ -	20	20	\$ -
<i>Grain Bag Extractor</i>	\$ 350.00	\$ 350.00	6	10	\$ 3,150.00
<i>Grain Vac</i>	\$ 400.00	\$ 200.00	34	41	\$ 6,500.00
<i>Grill</i>	\$ 50.00	\$ 5.00	5	7	\$ 35.00
<i>Hand Held Rope Wick</i>	\$ 50.00	\$ -	0	0	\$ -
<i>Land Leveller</i>	\$ 260.00	\$ 130.00	3	4	\$ 520.00
<i>Loading Chute</i>	\$ 50.00	\$ 25.00	5	5	\$ 125.00
<i>Manure Spreader</i>	\$ 300.00	\$ 150.00	1	1	\$ 150.00
<i>Mulch Applicator</i>	\$ 50.00	\$ 25.00	1	1	\$ 12.50
<i>Post Hole Auger</i>	\$ 50.00	\$ 25.00	0	0	\$ -
<i>Post Pounder</i>	\$ 250.00	\$ 125.00	18	19	\$ 2,012.50
<i>Pull/Push Roller Applicator</i>	\$ 50.00	\$ -	2	2	\$ -
<i>Quad Mount Rope Wick</i>	\$ 50.00	\$ -	0	0	\$ -
<i>Quad Mounted Sprayer</i>	\$ 50.00	\$ -	4	5	\$ -
<i>Quad Pull Type Sprayer</i>	\$ 50.00	\$ -	3	3	\$ -
<i>Rock Picker</i>	\$ 600.00	\$ 300.00	4	9	\$ 2,250.00
<i>Rock Rake</i>	\$ 600.00	\$ 300.00	2	6	\$ 1,800.00
<i>Roller Mill</i>	\$ 50.00	\$ 20.00	4	5	\$ 60.00
<i>Rotowiper</i>	\$ 150.00	\$ -	2	2	\$ -
<i>Sickle Mower</i>	\$ 100.00	\$ 50.00	0	0	\$ -
<i>Skidmount Sprayer</i>	\$ 50.00	\$ -	4	4	\$ -
<i>Smoke Signs</i>	\$ 60.00	\$ -	2	2	\$ -
<i>Steam Tables</i>	\$ 50.00	\$ 5.00	0	0	\$ -
<i>Tables</i>	\$ 50.00	\$1.00/table	13	14	\$ 228.00
<i>Toilets</i>	\$ 100.00	\$ 40.00	2	4	\$ 40.00
<i>Tree Spade</i>	\$ 300.00	\$ 50.00	8	14	\$ 575.00
<i>Truck Mount Sprayer</i>	\$ 200.00	\$ -	3	3	\$ -
<i>Wash Station</i>	\$ 50.00	\$ 10.00	1	3	\$ -
<i>Water Pumps</i>	\$100 (summer) \$1000 (winter)	\$75 (summer) \$200 (winter)	19	38	\$ 3,162.50
<i>Wire Roller</i>	\$ 50.00	\$ 25.00	4	8	\$ 200.00
<i>Zero Till Drills</i>	\$ 300.00	\$ 150.00	3	7	\$ 1,050.00
			208	282	\$ 23,769.50

Revenue	\$ 24,526.84
Expenses	\$ 32,430.81
Loss	\$ (7,903.97)

# Clear Hills County

## Request For Decision (RFD)

Meeting:	<b>Agricultural Service Board Meeting</b>
Meeting Date:	October 15, 2019
Originated By:	Greg Coon, Agricultural Fieldman
Title:	<b>INFORMATION &amp; CORRESPONDENCE</b>
File No:	63-10-02

### DESCRIPTION:

The board is presented with correspondence for review.

### BACKGROUND:

Attached are documents for the Board's information:

### ATTACHMENTS:

- DON Toxicity in Corn – Article – (63-10-02)
- Report Card on Resolutions – Provincial ASB Committee – (63-10-02)
- PREDA Northwest Alberta Agricultural Commodities – Report - (63-10-02)

### RECOMMENDED ACTION:

RESOLUTION by \_\_\_\_\_ that this Agricultural Service Board receives the information & correspondence of October 15, 2019 as presented.

Initials show support - Reviewed by: **Ma**

Manager: *Abj*

AgFieldman: *GC*

# Researchers discover a way to eliminate almost all DON toxicity in corn

## A detox for contaminated corn may be just around the corner

By [Ralph Pearce](#) *CG Production Editor* Published: September 19, 2019

As farmers think back to the challenges of the 2018 growing season, learning to deal with DON is probably top of mind. Indeed, it really was one of, if not THE worst year ever for managing the impacts of deoxynivalenol.

Not only did growers have trouble harvesting their infected corn, but delivery also became a nightmare. One or two elevators might reject a load only to have another finally accept it.

When dealing with research, it's easy to become lost in differentiating between the possible and the plausible. In the past 10 years, growers have been enticed with tales of the tremendous promise of soybean-based lubricants, corn plants that can fix their own nitrogen and "wild" soybeans that break yield barriers. Research is good, of course, but sometimes growers just want immediate help for their problems in the field.

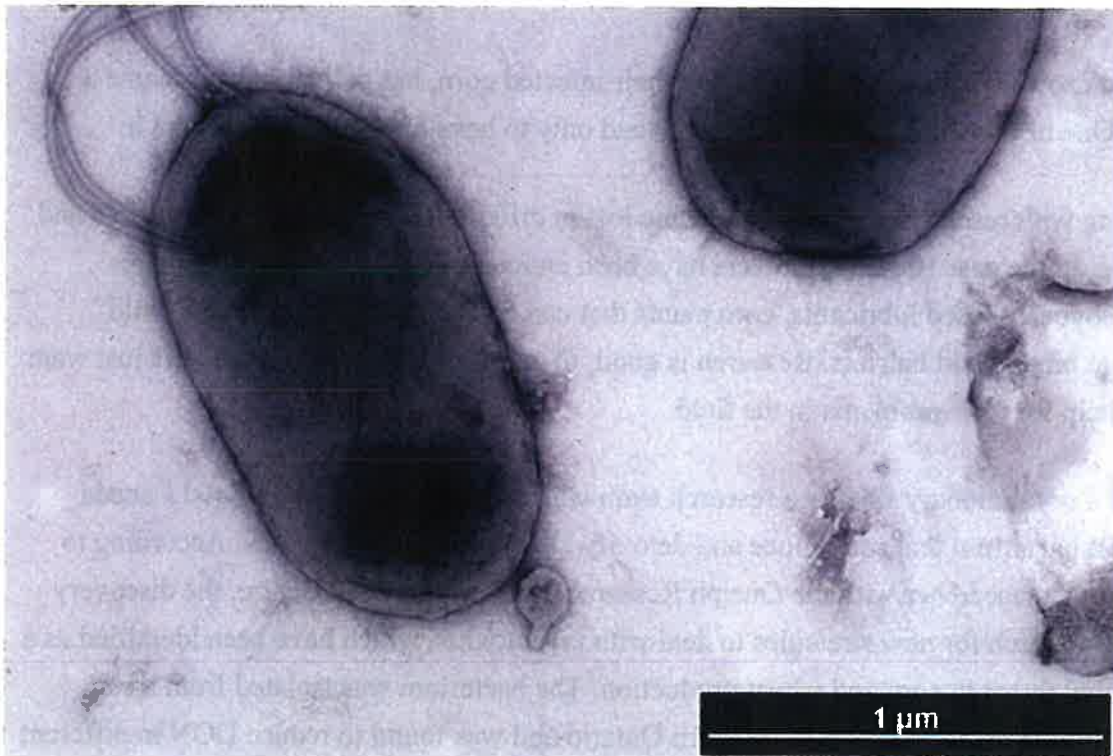
Now comes a revolutionary find by a research team with Agriculture and Agri-Food Canada (AAFC), of a bacterium that can reduce and detoxify DON in various scenarios. According to Dr. Ting Zhou, a researcher with the Guelph Research and Development Centre, the discovery came during a search for new strategies to deal with mycotoxins, which have been identified as a growing global threat in corn and wheat production. The bacterium was isolated from a soil sample gathered in an alfalfa field in southern Ontario and was found to reduce DON in different scenarios. In 2016, it was identified as *Devosia mutans*.

"Although it is not clear how the bacterium interacts with the pathogen in the field, the naturally occurring bacterium modifies the DON molecular structure through a two-step transformation," says Zhou. "That eliminates any toxicities associated with DON and renders the final wheat or corn products safe to consume or utilize in feed applications."



It took years to understand the biology and the safety of the isolated bacterium, and also to track all of the final products associated with transforming the DON molecule. From there, the team needed to determine the toxicity of the final products in animal models and identify the enzymes involved, as well as the specifics of the catalytic process.

Zhou's research team addressed those challenges through the use of state-of-the-art genomic technologies, along with cell culture and animal models, resulting in the purification of the enzymes involved. At that point, they were able to identify two specific enzymes expressed by the *Devosia mutans* bacterium that detoxify DON. The first was designated as DepA, which oxidizes DON and changes its structure to 3-keto-DON, the intermediate step in the process. The second enzyme, identified as DepB reduces 3-keto-DON to 3-epi-DON, which is a "very stable" chemical compound (stereoisomer) of DON without its toxicities.



*An image of the Devosia mutans bacterium under a transmission electron microscope.* photo: Courtesy Agriculture and Agri-Food Canada

“Both enzymes are effective in reducing DON toxicity but DepA reduces the toxicity by five-fold in comparison to the parental compound, DON,” says Zhou. On its own, that intermediate metabolite is not stable in the long term. “When that’s complemented with DepB activity, the final product is rendered less toxic by fifty-fold, where essentially no toxicity can be detected with the stable final product, 3-epi-DON.”

That is, there's no toxicity detectable with currently available analytical and molecular methods.

Thus far, the enzymatic process has been 100 per cent effective in eliminating DON under laboratory conditions. This two-step approach can be modulated based on the final goals of each application. In theory, the DepA stage should provide enough detoxification of DON with respect to certain animal applications. Combining it with the second-stage (DepB) process would address any food- or feed-safety concerns. The only proviso is that the enzymatic process may require the use of certain co-factors, thereby adding to the cost. But the enzyme kinetics are stable at temperatures of up to 60 C with a near-neutral pH range (5 to 7), all of which are promising within an agricultural/industrial outlook.

The bacterium was also tested using naturally contaminated corn where conditions of maximum DON transformations were seen. Zhou and his team recognize the importance of providing farmers with a ready-to-use and simple solution with consistent results, which is why they're involved in projects that study large-scale usage.

## **The good news**

Already, Zhou has been approached by several potential industrial collaborators, with the goal of moving this enzymatic process to its next stage where one of those participants can produce a product for food or feed applications. That raises the question of whether this will be delivered as a seed treatment or as a post-harvest application. Zhou believes there are advantages to either approach. A field treatment (seed coating or spray) would provide two distinct advantages, with the first being that it would protect plants from DON's fungal pathogen.

“We know that DON is an influential factor in the disease development as it decreases plant immunity and initiates the necrosis that leads to full-scale infection at a later stage,” adds Zhou. “The second advantage is that most members of the *Devosia* bacterial genus are known for their ability to fix atmospheric nitrogen. This characteristic becomes an added benefit to the original goal of implementation as a bio-control agent.”

Another option in using this enzymatic process could be as a feed pre-treatment in fermentation silos or tanks. It also could be incorporated directly into livestock feed, where the detoxification would take place in the gut of the animals.

Beyond those delivery methods, there's also the option for developing plants that over-express the enzymes, to further their benefits in protecting plants, animals and humans.

## Onward and upward

At this point, the research efforts of Zhou and his team have created a solid foundation to further the application and delivery methods, and he believes they're not far from seeing actual and empirical evidence to support the enzymes. Once identified, the industrial collaborators should take it to the commercialization phase.

“Based on the interest — in addition to the urgency around the globe to address the DON contamination dilemma, we believe that we are possibly two to three years away from the first commercial product,” says Zhou. “All of that depends on the appropriate industrial collaborations; among the biggest challenges is to find an industrial partner that has the capabilities for large-scale enzyme production.”

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One question that often precedes the development and launch of a product, particularly one created in another country like the U.S., is “will it work under Canadian conditions?” Since the bacterium was isolated from a Canadian soil sample, it's already adapted to agricultural practices that are in place here. Identifying the genes and working to develop a “Made-in-Canada” solution to DON is a huge discovery for AAFC researchers and the agri-food sector, in general.

“For almost three decades, the presence of DON biotransformation enzymes was hypothesized, but no team was able to provide conclusive evidence of such functionality,” says Zhou. “This will revolutionize the use of natural bacterial enzymes in combating DON. While the journey to completely eliminate DON from human food and animal feed is still in its infancy, the discovery of these enzymes provides the scientific community with a genuine template to work with.”

*This article was originally published in the September 2019 issue of the Corn Guide.*



# REPORT CARD ON THE RESOLUTIONS

2019

**Abstract**  
2019 Resolution Responses and Updates

Provincial ASB Committee  
[asbprovcommittee@gmail.com](mailto:asbprovcommittee@gmail.com)

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## Executive Summary

The Provincial ASB Committee has assigned the following grades to responses by government and non-government organizations for resolutions passed at the 2018 Provincial ASB Conference.

Resolution Number	Title	Proposed Grade
1-19	Loss of 2% Liquid Strychnine	Accept in Principle
2-19	Wildlife Predator Compensation Program Enhancement	Incomplete
3-19	Deadstock Removal	Unsatisfactory
4-19	Carbon Credits for Permanent Pasture and Forested Lands	Accept in Principle
5-19	Multi-Stakeholder Committee to Work at Reducing the Use of Fresh Water by the Oil and Gas Industry in Alberta	Incomplete
6-19	STEP Program Agricultural Eligibility	Accept the Response
E1-19	Access to Agriculture Specific Mental Health Resources	Unsatisfactory
E2-19	No Royalties on Farm Saved Seed	Accept in Principle



## Introduction

The Provincial Agricultural Service Board Committee is pleased to provide Agricultural Service Board (ASB) members and staff with the 2019 Report Card on the Resolutions. This report contains the government and non-government responses to resolutions passed at the 2019 Provincial ASB Conference. The Report Card on the Resolutions includes the *Whereas* and *Therefore Be It Resolved* sections from the resolutions, response, response grade and comments from the Committee and ASBs for each resolution. The resolutions and responses are also posted on the new Agricultural Service Board website at [agriculturalserviceboards.com](http://agriculturalserviceboards.com). Actions taken by the Committee on current and prior resolutions are also included in this report.

### 2019 ASB Provincial Committee Members

Members	Alternate
Corey Beck, Peace, Chair	Dale Smith
Steve Upham, Northeast, Vice-Chair	Marc Jubinville
Sebastien Dutrisac, Secretary, Association of Alberta Agricultural Fieldmen	Jane Fulton
Morgan Rockenbach, South	Shawn Rodgers
Wayne Nixon, Central	Brenda Knight
Lloyd Giebelhaus, Northwest	Dale Kluin
Brian Brewin, Rural Municipalities of Alberta (RMA)	
Elden Kozak, AAAF	
Doug Macaulay, Agriculture and Forestry	
Pam Retzloff, Recording Secretary, Agriculture and Forestry	
Maureen Vadnais-Sloan, Executive Assistant, Provincial ASB Committee	

Responses for many of the resolutions were received late this year due to the provincial election and changeover in government. The Committee has been working with the various government ministries to ensure that responses are received in a timely manner and anticipates that ASBs will be able to provide their input into the grading process earlier next year. The Committee appreciates the comments and grading provided by the ASBs as it helps them appropriately grade each response for advocacy efforts.

The Committee reviewed the responses and assigned one of four grades: *Accept the Response*, *Accept in Principle*, *Incomplete* and *Unsatisfactory*. The Committee considers the quality of each response and grading and comments submitted by ASBs when grading the resolutions. The grades assigned by the Committee are intended to provide further direction for advocacy efforts for each resolution. Please contact your Regional Representative if you have questions or comments about the grade assigned to a resolution or advocacy efforts.

A summary of grading provided by ASBs is attached for information. The Committee appreciates the input of ASBs into the grading process.



### Number of ASBs that Responded

Region	No. of ASBs Responding	% of Region Responding
South	5	28%
Central	5	36%
Northeast	1	9%
Northwest	4	31%
Peace	4	31%
<b>Overall</b>	<b>19</b>	<b>28%</b>

### 2019 Summary of Grading Responses Submitted

Resolution No.	Accept in Principle	Accept the Response	Incomplete	Unsatisfactory
1-19	19	0	0	0
2-19	1	0	18	0
3-19	2	0	0	17
4-19	18	0	0	1
5-19	0	0	18	1
6-19	0	19	0	0
E1-19	2	1	0	16
E2-19	17	0	0	2

## 2019 Activities

The Committee met four times in person as of September 25. The Committee has additional meetings planned for November and December to prepare for the 75<sup>th</sup> Anniversary of ASBs in 2020.

The Committee has been involved in the review of the ASB Program by Agriculture and Forestry. The Committee appreciates ASBs participation and input into this process and is looking forward to sharing the outcome of this review.

The Committee had the opportunity to meet with the new Ministers for Agriculture and Forestry and Environment and Parks. The Committee appreciated being able to connect with these Ministers and discuss the resolutions. Both Ministers seemed to be very aware of issues related to agriculture and the Committee was able to have good discussion with both Ministers. The Committee feels the Ministers have a better understanding of ASBs and what they do after meeting with them. The Committee is pleased with how the two ministries have started to reach out to the Committee for advice and support.

The Committee continues to try to develop stronger relationships with other agricultural organizations within the province. The Committee sent letters to all industry groups in Alberta in 2019 with the resolutions that passed at the 2019 Provincial Conference. The goal was to inform other organizations of resolutions that we were working on and attempt to find synergies and common ground with these organizations. Several of the organizations contacted replied saying their organizations were working on issues such as mental health and expressed interest in working with the Committee on this issue. Other organizations realized that there needed to be common ground found between ASBs and their organization and have met with the Committee to discuss how we can work together better on issues to benefit farmers and industry. The Committee meeting with the Industry Working Group in July is an example of this. The Industry Working Group has members from the Alberta Wheat and Barley Commissions, Alberta Seed Processors and Alberta Seed Growers. One of the main topics of conversation for this meeting was *Fusarium graminearum* and its' management. The Industry Working Group realized that they need to have a better working relationship with ASBs and may be in attendance at the 2019 Regional Meetings to meet ASB members.

The Committee is currently working on a new website specifically for ASBs. The website [agriculturalserviceboards.com](http://agriculturalserviceboards.com) is being developed to fill in gaps created by recent changes to the Agriculture and Forestry website. The Committee felt that this website could be used to increase availability of information to ASBs regarding resolutions and advocacy efforts. All ASBs are encouraged to visit the website and provide input on what they would like to see as part of the new website. ASBs may contact Maureen Vadnais-Sloan, the Committee's Executive Assistant, to provide input on the website.

The Committee appreciates the support from ASBs and encourages them to contact their Regional Representatives as needed.

## 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 graded as **Accept the Response** addresses the resolution as presented or meets the expectations of the Provincial ASB Committee.

### Accept in Principle

A response that is graded **Accept in Principle** addresses the resolution in part or contains information that indicates that further action is being considered.

### Incomplete

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

### Unsatisfactory

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

# 2019 Resolutions



**RESOLUTION 1-19  
LOSS OF 2% LIQUID STRYCHNINE**

**WHEREAS** Under the authority of the *Pest Control Product Act* and based on the evaluation of currently available scientific information, Health Canada is proposing that products containing strychnine for control of Richardson's Ground Squirrels do not meet the current standards for environmental protection and, therefore, proposed to be cancelled;

**WHEREAS** There needs to be a product available to producers to effectively assist in the control of Richardson's Ground Squirrels;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

Health Canada and the Pest Management Regulatory Agency reconsider their decision and leave 2% Liquid Strychnine on the market available on a permanent basis to agricultural producers to utilize on their farms for control of Richardson's Ground Squirrels.

**STATUS:** Provincial

**RESPONSE**

**AGRICULTURE AND AGRI-FOOD CANADA**

On behalf of the Honourable Marie-Claude Bibeau, Minister of Agriculture and Agri-Food, I wish to acknowledge receipt of your correspondence to her predecessor, the Honourable Lawrence MacAulay, and the enclosed copy of the Agricultural Service Board's "Resolution 1-19: Loss of 2% Liquid Strychnine".

As you may know, the Pest Management Regulatory Agency (PMRA) has completed a consultation on strychnine and associated end use products in order to make a decision on its' future use. I have taken the liberty of forwarding a copy of your correspondence to the Office of the Honourable Ginette Pettipas Taylor, as this matter falls under her jurisdiction. I am certain that Minister Pettipas Taylor will give your concerns every consideration.

**HEALTH CANADA: PEST MANAGEMENT REGULATORY AGENCY**

Thank you for your correspondence of February 11th, 2019, addressed to the Honourable Ginette Pettipas Taylor, Minister of Health, regarding the proposed re-evaluation decision to cancel the use of strychnine for the control of ground squirrels. The Minister has asked that I respond on her behalf.

In Canada, pesticides are regulated federally under the *Pest Control Products Act*, which is administered by Health Canada's Pest Management Regulatory Agency (PMRA). Our number one priority is to protect the health and safety of Canadians and their environment, including non-target wildlife.

Before a pesticide is allowed to be used or sold in Canada, it must undergo a rigorous scientific assessment process to determine that the health and environmental risks of using the product are acceptable, when used according to label directions. In addition, Health Canada periodically re-evaluates pesticides that are on the market to assess whether they continue to meet the Department's health and environmental standards and hence whether they should continue to be permitted for use in Canada. Health Canada will take regulatory action at any time should unacceptable risks to human health or the environment be identified.

As you are aware, Health Canada published a proposed re-evaluation decision, PRVD2018-13: Strychnine and Its Associated End-use Products (Ground Squirrel Use), in June 2018. This document proposed to cancel the use of strychnine for ground squirrel control due to risks of concern for non-target organisms, including species at risk. As indicated in this document, multiple lines of evidence (risk assessment based on available information, incident reports, information from provinces including information generated through the Integrated Pest Management Committee) indicated that risks of concern for non-target poisonings continue to occur with the use of strychnine. Reliance on strychnine may not be sustainable in the long-term due to the lack of practical mitigation measures to protect non-target organisms.

During the consultation period, several comments relating to the proposed decision were received from the Canadian public and stakeholders, including Agricultural Service Boards, and are currently under review.

Once Health Canada has considered all of the comments and information received from stakeholders and members of the public, a science based approach will be applied in making a final decision.

Please note that there are alternatives to strychnine as mentioned in the consultation document:

- chlorophacinone and diphacinone (multi-feed anticoagulant baits);
- zinc phosphide (non-anticoagulant bait);
- aluminum phosphide (fumigant); and
- white mustard seed powder and sodium alpha-olefin sulfonate (foam).

Should you have further questions regarding pesticides and the federal pesticide regulatory system, please contact the PMRA by telephone at 1-800-267-6315 or by email at [pmra.infoserv@hc-sc.gc.ca](mailto:pmra.infoserv@hc-sc.gc.ca).

**GRADE: Accept in Principle**

## COMMENTS

The Committee graded this resolution as “*Accept in Principle*” as the response from PMRA indicated that a decision is still pending for Re-evaluation Decision PRVD2018-13. PMRA indicated that their response will be science based and included a list of other products that can be used to control ground squirrels. The Committee continues to monitor PMRA’s website for the re-evaluation decision.

The Committee discussed this with the Minister in July and requested support from the Minister to advocate for the continued registration of strychnine. The Minister expressed support for maintaining the registration as he indicated he “hates gophers” and requested the Committee send another letter to PMRA outlining the issues with each of the products, requesting that people that want to use strychnine must undergo mandatory training and to request tracers be put into new batches of strychnine to indicate if it is old or new strychnine responsible for off target poisonings. ASBs commented that there is a need to address the economics of strychnine.

The Committee is concerned because the registration for 2% liquid strychnine expires December 2019. The Committee will continue to advocate for the continued registration of 2% liquid strychnine.

**RESOLUTION 2-19**  
**WILDLIFE PREDATOR COMPENSATION PROGRAM ENHANCEMENT**

- WHEREAS** Predation by carnivores and birds of prey continues to be a problem for ranchers and agriculture producers;
- WHEREAS** Many Municipalities have submitted multiple resolutions in this regard for these same problems;
- WHEREAS** To maintain the credibility of the program, livestock losses must be confirmed by Fish and Wildlife Officers, as killed or injured by predators;
- WHEREAS** The protection of life and property is a priority for the provincial government, which means providing a response to reports of problem wildlife, may sometimes shift the efforts of Fish and Wildlife Officers away from the predator control mandate;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

that the Ministers of Environment and Parks, Justice and Solicitor General, and all other relevant government ministries implement an enhanced Predator Compensation Program that could utilize the GPS location and date time features and photo capabilities of smart phone technology to provide photographic or video evidence to assist in the confirmation of livestock death and livestock injury in a timely and prompt manner, and reduce the number of physical site investigations Fish and Wildlife Officers must conduct.

**STATUS: Provincial**

**RESPONSE**

**ALBERTA AGRICULTURE AND FORESTRY**

Through the Agriculture Financial Services Corporation (AFSC), Alberta Agriculture and Forestry (AF) is responsible only for Wildlife Damage Compensation Program and not for the Wildlife Predator Compensation Program; therefore, neither AFSC nor AF is in a position to provide response to Resolution 2-19.

The Wildlife Predator Compensation Program is administered by the Alberta Environment and Parks (AEPs) Fish and Wildlife section, and we will defer to them for response.

**ALBERTA ENVIRONMENT AND PARKS**

The Wildlife Predator Compensation Program accepts electronic photos from producers as supplementary evidence in determining eligibility of compensation claims. Such photos are particularly valuable in cases where key evidence may be lost if not immediately recorded (weather, scavenging, etc.). The protocol for this program is to initiate investigations within 24 hours of notification of a livestock loss due to predation.

Only on rare occasions do response times exceed this protocol, and measures are taken to ensure such delayed responses do not affect decisions about compensation.

Environment and Parks staff evaluate the field investigative response times for the Wildlife Predator Compensation Program on an annual basis, and adjust the program by stationing seasonal problem wildlife technicians in municipalities with the highest incidence of predation. To continue to support producers, in 2018, department staff enhanced the "Ranchers Guide to Predator Attacks" and included additional tools to focus producers on collecting the types of evidence most useful to investigators. Municipalities can order copies of this publication from the department Information Centre by contacting [aep.info-centre@gov.ab.ca](mailto:aep.info-centre@gov.ab.ca).

The department is reviewing several initiatives to reduce livestock losses to predators, including evaluation of proposed program timelines, costs and potential opportunities for stakeholder partnerships.

Mark Heckbert, Provincial Wildlife Conflict Specialist, would be pleased to meet with the ASB Provincial Committee to further discuss any issues regarding the Wildlife Predator Compensation Program. You can reach Mark Heckbert at [mark.heckbert@gov.ab.ca](mailto:mark.heckbert@gov.ab.ca) or at 780-523-6517 (dial 310-0000 for a toll-free connection to any Government of Alberta number).

#### **ALBERTA JUSTICE AND SOLICITOR GENERAL**

Thank you for your inquiry below with respect to an outstanding response to the Provincial Agricultural Service Board Committee's resolution: 2-19: Wildlife Predator Compensation Program Enhancement.

Upon review of resolution 2-19, it was determined that Alberta Environment and Parks (AEP) was the more appropriate ministry to respond, given the Wildlife Predator Compensation Program falls under the jurisdiction of that ministry. I am pleased to advise that the ministry of Alberta Justice and Solicitor General did provide AEP with input into their response, prior to the spring provincial election held on Tuesday, April 16, 2019.

For further updates, please feel free to contact the Deputy Minister's Office of Alberta Environment and Parks.

#### **GRADE: Incomplete**

#### **COMMENTS:**

The Committee graded this resolution as Incomplete as the response was received in July. The Committee did not have adequate time to review and grade the resolution before meeting with the Minister of Environment and Parks.

The Committee discussed this resolution with the Minister on September 25. The Director of

Fish and Wildlife attended the Minister meeting and replied that the one concern is that it will upset the balance in the current compensation program. Other predators under the compensation program are harvested under regulated programs compared to coyotes that are listed as a nuisance under the Alberta Agricultural Pests Act with no limitations on harvesting them. The Minister added that another concern is with money to fund the program. The Minister has met with other groups on this issue and is recommending setting up a working group to look at the compensation program in total.

ASB Comments recommend that the grade be changed to Accept in Principle as the response indicates that photos are accepted as part of their investigations.

The Committee looks forward to working on this issue with Environment and Parks and coming up with a solution that addresses the needs of producers.



**RESOLUTION 3-19  
DEADSTOCK REMOVAL**

- WHEREAS** rendering companies would travel the Province of Alberta picking up deadstock for free and turn the deadstock into by products;
- WHEREAS** Bovine Spongiform Encephalopathy (BSE) was discovered in Canada in 2003;
- WHEREAS** regulatory changes were made to remove Specified Risk Materials from carcasses causing rendering companies to charge a fee for service;
- WHEREAS** producers are trying to limit or manage the cost of removing deadstock and started disposing of deadstock on-farm;
- WHEREAS** on farm disposal of deadstock attracts livestock predators such as coyotes, wolves and bears;
- WHEREAS** large carnivore interaction with farm families has increased, causing public safety concerns;
- WHEREAS** the primary producer bears the cost of regulatory changes for the entire food production chain;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

That the Provincial Government compensate producers fifty percent (50%) of the deadstock pick up fees with producers bearing the remainder of costs.

**STATUS:** Provincial

**RESPONSE**

**ALBERTA AGRICULTURE AND FORESTRY**

The *Disposal of Dead Animals Regulation* (Alberta) provides for several methods of disposal that are acceptable for routine on-farm animal deaths (provided the animal was not infected with a provincially or federally reportable disease and the animal was not euthanized with drugs): by landfill, burial, burning, composting, rendering, and natural disposal. Certain additional conditions are outlined in the regulation that are dependent on the type of disposal method chosen.

While the presence of Bovine Spongiform Encephalopathy (BSE) in Canada did change the availability of rendering in some locations of the province, this was largely due to a change in the demand for the services in more remote areas, and a subsequent decision by renderers to change the supply of their services. AF has reviewed options to subsidize rendering costs in order to increase the number of samples available for BSE surveillance; the results of this analysis has continued to suggest a lack of return on

investment, with a significant increase in cost and very little increase in the number of samples.

The most valuable samples for BSE surveillance are those collected on-farm, rather than those collected at deadstock/rendering facilities, because of the presence of a disease history for those collected on farm. The BSE surveillance program currently pays producers \$75 per animal to assist with keeping the carcass from predation while testing is performed.

As part of emergency preparedness for foreign animal disease incursions, all farms should consider developing an on-farm disposal program that will work in all seasons. Municipalities could be eligible for funding under the Canadian Agricultural Partnership program for the development of emergency preparedness plans, including option for locating sites to dispose of deadstock. More information is available at: <https://cap.alberta.ca/CAP/>.

**GRADE: Unsatisfactory**

**COMMENTS**

The Committee graded this resolution as Unsatisfactory as the response did not address the resolution as presented. The focus of the response was for BSE Surveillance but the concern raised by ASBs was regarding predator and human conflicts. The Committee also felt that producers and not municipalities needed funding to help with disposal of livestock.

The Committee analyzed what the potential cost of implementing a program like this would be and determined the cost to be approximately \$10 million dollars to implement a cost share program for rendering services. The Committee used the following assumptions:

- Average number of Alberta cattle: 3.34 million (StatsCan, 2016)
- Normal death loss: 2-3%
- Average cow weight: 1,390 lbs
- Rendering cost: \$0.14/lb (West Coast Reduction Charges)
- Average cost to render 1 cow = (1,390 lb)(\$0.14/lb) = \$194.60 (round up to \$195)
- (3.34 million cows)(3% death loss) = 100,200 animals lost
- (100,200 dead cows)(\$195/cow) = \$19,539,000 = cost to render animals
- reimburse at 50% (resolution ask) = \$9,769,500 or ~\$10 million

The Committee discussed this resolution with Minister Dreeshen and requested assistance with developing a viable rendering industry in Alberta again. The Minister replied budgets were tight in Alberta and there was no funding available for a program such as this. The Minister asked if any of the other provinces were doing a better job of livestock disposal and said the Committee needs to look at what other provinces are doing and what could possibly be done to re-establish the rendering industry and look at a stream that would add value to deadstock removal.

ASB comments varied but there was a consensus that producers should have responsibility for their deadstock.

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**RESOLUTION 4-19**  
**CARBON CREDITS FOR PERMANENT PASTURE AND FORESTED LANDS**

- WHEREAS** A significant amount of Carbon is stored within land used for permanent pasture, estimated at ten to thirty percent of the worlds carbon;
- WHEREAS** A significant amount of Carbon is stored within private land associated with agricultural operations that is left forested;
- WHEREAS** There is currently a carbon credit program available for annual crop growers but nothing for permanent pasture or forested lands;
- WHEREAS** Producers with permanent pasture and forested lands should be compensated for their contributions to reducing atmospheric carbon dioxide;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

that Alberta Agriculture and Forestry develop a process to allow farmers and landowners to access carbon credits for land used for permanent pasture, perennial forage crops or land that is left forested.

**STATUS:** Provincial

**RESPONSE**

**AGRICULTURE AND FORESTRY**

AF recognizes that carbon sequestration will be an important source of emissions reductions, and we support market-based approaches to emissions reductions that compensate producers for doing their part to combat climate change.

Under the *Climate Change and Emissions Management Act* and the associated regulations, Alberta policy is for measurement and mitigation of all greenhouse gases (GHGs). The regulations specify 23 different gases, three of which are common in the agriculture sector: carbon dioxide, nitrous oxide, and methane.

The development of offset protocols requires careful consideration to ensure they are science-based, verifiable, and robust. Protocols must consider all relevant or affected GHG emissions. Changes in nitrous oxide and methane must also be taken into account, as well as carbon/carbon dioxide. Additional considerations include:

- Establishing science-based baselines;
- Determination of clear, well-defined geographical boundaries;
- Establishing a framework; Identifying monitoring, verification, and reporting requirements;
- Ensuring permanence and avoiding leakage;

- Ensuring proper valuation of credits (quantification of the impact of an action and proper economic valuation);
- Establishing legal and institutional frameworks; and Organizing stakeholders and obtaining 'buy-in\*.

Offsets are measured by the difference in emissions when a producer changes their practices or implements a technology (not in a business-as-usual state); that is, it is not about total carbon in the soil, but how soil carbon is altered with a change in management. Offsets in perennial agriculture crops, for example, include a livestock component. Management changes to produce more forages may promote more cattle (fed on or off the field) releasing more methane and nitrous oxide. The positive change in carbon may, thus, be reduced by the increased production of these other two gases.

AF is currently working with the Alberta Climate Change Office to develop a carbon sequestration protocol for forestry in collaboration with stakeholders. The Government of Alberta may consider developing additional protocols, including permanent pasture or perennial forage crops, as science and policy evolves to make them a market opportunity.

#### **ENVIRONMENT AND PARKS**

Environment and Parks administers the Alberta Emission Offset System, and Agriculture and Forestry often provides valuable input into the protocol development process. Currently, the Carbon Competitiveness Incentive Regulation (CCIR) enables the Alberta Emission Offset System. A government-approved quantification protocol is required for activities to generate emission offsets. There are currently no approved protocols for the activities list by ASB (permanent pasture, perennial crops and land left forested).

Organizations interested in developing a protocol for a reduction or sequestration activity may submit a request to develop a protocol to Environment and Parks. Information on the process and the template for submitting a request is available in the "Technical Guidance for Offset Protocol Development and Revision" (July 2018), which you can find by searching for the document's title at <https://open.alberta.ca/publications>.

Environment and Parks evaluates requests and selects protocols to be developed or revised. Factors considered in the selection process include available resources, magnitude of potential reductions, ability to accurately quantify reductions or sequestration, additionality and alignment with policy priorities. The deadline to submit a request is the end of calendar year. If a protocol is not selected, the protocol developer is welcome to submit another request the following year.

Biological sequestration protocols are challenging because the science is still evolving for measurement, monitoring and quantification of land and trees as bouth

sources and sinks for atmospheric carbon dioxide. It is also challenging to quantify incremental reduction or sequestration due to implementing a management practice or technology. There must be an increase in the rate of sequestration compared with the baseline scenario, and the increase must be measured and quantified in a way that meets the rigour of Alberta's regulatory system.

**GRADE: Accept in Principle**

**COMMENTS**

The Committee graded this resolution "Accept in Principle" as the responses indicated that there was consideration for these protocols to be developed. The responses were also clear in outlining how ASBs could start to work on protocols that could be submitted to the government for vetting and approval.

The Committee discussed this briefly with the Minister and were told that Alberta Environment and Parks is currently focusing on large emitters. Environment is planning to undertake consultations for carbon credits once this work has been completed. The Minister said he is very aware of this issue as the grazing associations have been actively advocating for this also.



**RESOLUTION 5-19**  
**MULTI-STAKEHOLDER COMMITTEE TO WORK AT REDUCING THE USE OF FRESH WATER BY**  
**THE OIL AND GAS INDUSTRY IN ALBERTA**

- WHEREAS** there is a concern about the enormous loss of fresh water (see Reference 1) by the oil and gas industry in the hydro-fracking and water injection processes (see Reference 7 and 8);
- WHEREAS** the oil and gas industry is licensed over one billion cubic metres of fresh water annually;
- WHEREAS** fresh water is a critical resource to Alberta's agricultural producers;
- WHEREAS** free and easy access to fresh water for enhanced oil recovery acts as a disincentive for oil and gas companies to pursue alternate methods such as CO2 injection, light oil hydro-fracking or to drill deeper to locate and pipe saline water (see Reference 3 and 7) for injection purposes;
- WHEREAS** the Brazeau County Agricultural Service Board is concerned with the amount of fresh water used in the fracking and water injection process;
- WHEREAS** the Council of Brazeau County recently moved a Motion requesting a multi-stakeholder committee be struck to look at reducing the use of fresh water by the oil and gas industry;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

that the Provincial Agricultural Service Board Committee request the Government of Alberta to immediately strike a multi-stakeholder committee to work at reducing the use of fresh water by the oil and gas industry in Alberta.

**STATUS:** Provincial

**RESPONSE**

**AGRICULTURE AND FORESTRY**

AEP, Alberta Energy, and the Alberta Energy Regulator are leading the efforts to minimize the use of fresh water in oil and gas extraction activities. As this resolution has been forwarded to AEP, as well, AF will defer to that department for response.

**ENVIRONMENT AND PARKS**

Water use, including where, when and how much water can be withdrawn, is regulated under the *Water Act*. Diversion licences are granted to applicants when sufficient water is available to meet both ecosystem requirements and the rights of existing licence holders. The Alberta Energy Regulator (AER) is responsible for issuing water licences on behalf of the government for energy development activities.

The 2006 Water Conservation and Allocation Policy for Oilfield Injection requires operators to assess alternatives to freshwater prior to applying for a water licence for enhanced oil recovery (water floods) and in-situ operations. This policy made significant improvements to water productivity.

In February 2018, Environment and Parks issued the Directive for Water Licensing of Hydraulic Fracturing Projects - Area of Use Approach (the directive). The directive provides direction to the AER to ensure a consistent approach to water licensing of hydraulic fracturing projects with multi-year operations. The directive requires operators to demonstrate their need for water and to conduct an assessment of alternatives to fresh water. You can find the directive by visiting <https://open.alberta.ca/publications> and searching for "directive for water licensing of hydraulic fracturing."

Because these issues are wide-ranging and complex, I welcome the opportunity to meet with you, along with some of my staff, to discuss these important topics.

#### **ENERGY**

The resolution falls under the jurisdiction of Environment and Parks. I believe they will be reaching out to you shortly.

#### **GRADE: Unsatisfactory**

#### **COMMENTS**

The responses for resolution 5-19 were graded as Unsatisfactory because they did not address ASBs request to strike a multi-stakeholder committee to review. The Committee appreciates that work has been done by Alberta Energy Regulator with the "Director for Water Licensing of Hydraulic Fracturing Projects – Area of Use Approach" to reduce fresh water use but feels that more could be done to reduce fresh water use in the oil and gas industry.

The Committee discussed this with the Environment Minister and the Minister said it could be included as part of the review of the Alberta Energy Regulator. One of the concerns the Minister has been hearing is that landholders, agriculture and communities are not currently able to participate in the process. The Minister said he would bring it up with the Deputy Minister who is currently the head of the Alberta Energy Regulator and they will incorporate it into the review.

The "Directive for Water Licensing of Hydraulic Fracturing Projects – Area of Use Approach" may be found in the Appendix.

**RESOLUTION 6-19  
STEP PROGRAM AGRICULTURAL ELIGIBILITY**

- WHEREAS:** Farming operations, whether they are incorporated, or a sole proprietorship can be very labour intensive, especially in the fruit and vegetable sector;
- WHEREAS:** As of October 1, 2018, the minimum wage goes up to \$15.00/hour creating an even greater expense to farming operations with high labour costs;
- WHEREAS:** The STEP program states that "Small businesses must be registered in Alberta and have a valid Alberta Corporate Access Number (ACAN);
- WHEREAS:** Opening up opportunities for students both high school and post secondary for summer employment in the agricultural industry whether the employer is incorporated or not will benefit both employer and employee and support local agriculture, local food production, agritourism, and farmers markets;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

the Government of Alberta review its Summer Temporary Employment Program to include farms and small businesses that are not incorporated.

**STATUS:** Provincial

**RESPONSE**

**CULTURE AND TOURISM**

Our office had forwarded your previous email to the Ministry of Labour to reply on our behalf our Ministry as this resolution would fall under their mandate. I have attached a copy of the response that was sent out on March 22, 2019.

**ALBERTA LABOUR**

Thank you for your February 12, 2019 email, providing a copy of the February 4, 2019 letter regarding Resolution 6-19, passed at the 2019 Provincial Agricultural Service Board Conference. I am responding on behalf of the Government of Alberta, as a provincial election is currently underway.

I appreciate that the Provincial Agricultural Service Board Committee recognizes the importance of the Summer Temporary Employment Program (STEP). STEP provides students with the opportunity to build meaningful work experience, increase their skills and workplace knowledge and help prepare them for the future.

Currently, to be eligible to participate in STEP, businesses must be incorporated or registered under provincial or federal legislation. Small businesses within the province must be registered in Alberta, have been operating for no less than one year (from the

date of application) and have an Alberta Corporate Access Number (ACAN), which is used for verification and validation purposes. Employers that do not meet the eligibility criteria cannot be funded through STEP, regardless of their industry.

When providing funding to employers to hire students, it is important that all organizations are verified to ensure they meet all program requirements. Application assessment includes verifying the position is in Alberta, verifying the business is registered in Alberta (as noted above) and is in good standing with Alberta's health and safety legislation, and confirming that all other eligibility criteria is met.

Please be assured Labour is committed to monitoring our programs to support workers and employers, including STEP, and your organization's feedback will be taken into consideration.

You may be pleased to know Labour has a network of Workforce Consultants across the province who work with employers, including farm and ranch owners, to address their workforce needs. Employers may contact the Employer Hotline at 1-800-661-3756 to get connected with a Workforce Consultant in their area and learn about programs and supports available to them.

Agriculture and Forestry also provides programs and services that may assist farm operators, including the Summer Farm Employment Program, which provides opportunities for full-time farm work experience for young people. Employers are encouraged to call the Agriculture and Forestry contact centre at 310-FARM or visit their website at [www1.agric.gov.ab.ca/general/progserv.nsf/all/pgmsrv35](http://www1.agric.gov.ab.ca/general/progserv.nsf/all/pgmsrv35) to learn more about this and other programs that are available for the current year.

Employers considering applying for the Canada Summer Jobs Program, available through the Government of Canada, can find more information at [www.canada.ca/en/employment-social-development/services/funding/canada-summer-jobs.html](http://www.canada.ca/en/employment-social-development/services/funding/canada-summer-jobs.html) or call 1-800-935-5555.

If you have comments about the Canada Summer Jobs Program you may wish to contact the Honourable Patricia Hajdu, Minister of Employment, Workforce Development and Labour, at:

Honourable Patricia A. Hajdu  
Minister of Employment, Workforce Development and Labour  
House of Commons  
Ottawa, ON K1A 0A6

Email: [Patty.Hajdu@parl.gc.ca](mailto:Patty.Hajdu@parl.gc.ca)  
Phone: 1-613-996-4792

Thank you again for writing and for the opportunity to respond. I trust this information will be of use to you.

**GRADE: Accept the Response**

**COMMENTS**

The response answered the question so the Committee assigned it a grade of "Accept the Response". The Committee was pleased that the Ministry of Labour said that they would consider this resolution as part of their review process for the STEP. The Committee hopes that Labour will consider changing STEP in the future to benefit producers that are not incorporated and appreciated that Labour provided information for other programs that producers could access.

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**EMERGENT RESOLUTION E1-19**  
**ACCESS TO AGRICULTURE-SPECIFIC MENTAL HEALTH RESOURCES**

- WHEREAS** Agriculture is economically essential, both provincially and federally, and agriculture needs healthy farmers to function;
- WHEREAS** Agriculture is a stressful occupation, which has become especially clear with three consecutive years of poor harvests, livestock feed shortages and other effects of climate change;
- WHEREAS** Despite mental illness diagnoses increasing, a large stigma exists around mental illness and asking for help which is especially prominent in industries like agriculture where members are isolated and have a distinct workplace culture of not requesting help;
- WHEREAS** Alberta does not have an agriculture-specific mental health crisis line, although neighbouring provinces do (e.g. Saskatchewan);
- WHEREAS** 310-FARM is a well-known and commonly utilized number that can direct callers to an abundance of resources, but only offers agronomic information during office hours;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

That the Provincial Government of Alberta facilitates the formation of a free, year-round, all hours, mental health crisis hotline, dedicated to the agriculture industry, providing farmers with direct access to uniquely qualified professionals and resources, whom have both an understanding of mental health issues and agriculture-specific stresses.

**FURTHER THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

That the Provincial Government of Alberta secure long term, sustainable funding for the operation and maintenance of this mental health crisis hotline.

**STATUS:** Provincial

**RESPONSE**

**AGRICULTURE AND FORESTRY**

AF appreciates Alberta's Agricultural Service Boards interest in this important topic. Indeed, a 2016 study from the University of Guelph found that 45 per cent of farmers had high stress, while 40 per cent said they would feel uneasy asking for professional help. Thirty-five per cent of Canadian producers could be classified as depressed and 58 per cent of producers meet the criteria for anxiety (<https://news.uoguelph.ca/2016/06/farmers-need-want-mental-health-heipsurvev/>).



While this study does not offer any Alberta-specific data, Farm Management Canada recently released an "Expression of Interest" to industry stakeholders interested in contributing to an industry-wide, national study on the connection between mental health and farm business management (<https://fmc-gac.com/announcements/cpt/rei-mh-fbm/>). Alberta's Agricultural Service Boards may consider responding to this call as a means of providing an Alberta perspective, and to further validate the need for the proposed service.

At this time, there is no funding available for a mental health crisis hotline dedicated to agriculture. AF is committed to reaching out to Alberta Health in the coming months to discuss potential options and strategies to address the concerns of mental health as they specifically relate to the agriculture industry in Alberta.

## HEALTH

I appreciate the comprehensive information the Provincial Agricultural Service Board (ASB) Committee provided in the *Resolution E1-19: Access to Agriculture Specific Mental Health Resources*, and am pleased that the findings are aligned with the approach we are taking to support Albertans who live in rural communities. I understand that agriculture is a stressful occupation with unique mental health concerns.

I assure you that improving mental health supports for farming families in rural communities is a priority for our government. There are a number of activities underway that focus on rural communities.

- Currently, the 211 database (mentioned in your resolution), covers about 65 per cent of the province. It is being expanded to cover the whole province so people can get information about addiction and mental health services that are close to home, especially in rural areas.
- Alberta Health Services is increasing mental health service delivery to rural and remote communities through telehealth services. Telehealth is also used for specialized service delivery in rural areas (e.g., child psychiatry, psychogeriatrics, opioid services) in combination with local Alberta Mental Health staff.
- Alberta Health provided grant funding to, and is working closely with, the Canadian Mental Health Association to improve community-led mental health supports in rural areas. Over the next three years, 150 rural communities (including towns, villages and Indigenous communities) will develop and implement local action plans to improve addiction and mental health services. We are looking forward to seeing the results.
- There have been 40 free Mental Health First Aid (MHFA) for Seniors training sessions offered across Alberta, including rural areas, with more to come. MHFA is an evidence-based course that supports participants to respond to emerging and crisis mental health issues in the people they serve, their co-workers, friends and families.
  - It has been recognized as an effective tool for farming communities, and training is also being offered through Farm Credit Canada.

- We are also piloting and evaluating e-counselling options and expanding the Mental Health Capacity Building in Schools program to 18 more schools, including in rural and remote areas of the province, bringing supports to 100,000 children across the province.

Additionally, the Mental Health Help Line provides a province-wide, 24/7 telephone service. This is a confidential, anonymous service that offers help for mental health concerns, including crisis intervention, information about mental health programs and services, and referrals to other agencies, if needed.

There are also agriculture specific health supports available to farming families in Alberta:

- 4-H Farm Management Canada has just launched their Healthy Living initiative, a two-year program available to all 4-H Clubs in Canada. The first year of the program will focus on providing mental health supports to children and youth in collaboration with partners such as the Kids Help Phone. Information is available on their website at <https://4-h-canada.ca>.
- Farm Credit Canada has a program, Rooted in Strength, that focuses on breaking the stigma of mental health support in the farming community and providing resources to farming families. Information about this program is available on their website at [www.fcc-fac.ca/en/ag-knowledge/wellness.html](http://www.fcc-fac.ca/en/ag-knowledge/wellness.html).
- Do More Ag is a not-for-profit organization focusing on mental health in agriculture, that offers resource listings and works with partner organizations across Canada. Information about this organization is available on their website at [www.domore.org](http://www.domore.org).

I commend you for your advocacy on this matter and appreciate the time you have taken to bring this concern to my attention. The information you have provided will help to ensure that our health care system remains responsive to the needs of all Albertans.

**GRADE: Unsatisfactory**

**COMMENTS**

The Committee graded this response Unsatisfactory as it does not meet the expectations of the Committee. The Committee appreciates the response from Alberta Health as it shows commitment to supporting mental health resources for rural municipalities through expansion of various initiatives already in place. The Committee is disappointed that there wasn't an indication of agriculture specific training to be included as part of the expansion of these initiatives to provide better support for producers.

The Committee discussed this with the Minister of Agriculture and Forestry and the Minister said that providing additional, agriculture specific training for existing help lines is something that could be considered. The Committee plans to work with Rural Municipalities of Alberta

and other organizations to advocate for agriculture specific resources for mental health.

ASBs commented that the Committee should accept the Minister's recommendation for a proposed study and highlighted that there are resources currently available in Alberta. ASBs also indicated that they thought there could be more done to help with mental health and that long term sustainable funding needed to be secured with a commitment for resources specific to agricultural producers.

**EMERGENT RESOLUTION E2-19  
NO ROYALTIES ON FARM-MADE SEED**

- WHEREAS** Agriculture and Agri-Food Canada (AAFC) and the Canadian Food Inspection Agency (CFIA) are considering implementing a system to collect royalties on farm saved seed;
- WHEREAS** Paying royalties on farm saved seed will increase the price of seed and decrease profit margins for farmers;
- WHEREAS** Royalties on farm saved seed could limit seed choices for farmers as seed companies move to deregister old varieties, which could mean farmers would be forced to pay royalties and to grow only newer varieties;
- WHEREAS** AAFC and CFIA have not outlined details on how much a royalty would be, how it would be collected or how potentially \$100 million in royalties would be dispersed;
- WHEREAS** Farmers currently pay check-offs on almost all grains they deliver to elevators, some of these funds are funneled through the Western Grain Research Foundation (WGRF) and used for variety breeding programs;
- WHEREAS** Also, the WGRF Endowment Fund has received the CN and CP rail overages & penalties under the maximum revenue entitlement program every year since 2000 and had a balance of just under \$132 million at the end of 2017. This money has been collected from farmers via excessive freight charges, and could be used to fund research;
- WHEREAS** The purpose of Agricultural Service Boards is to improve the economic welfare of the farmer and a royalty system has potential to decrease farmers' ability to be profitable and make sound agronomic decisions;

**THEREFORE BE IT RESOLVED**

**THAT ALBERTA'S AGRICULTURAL SERVICE BOARDS REQUEST**

that Agriculture and Agri-Food Canada and the Canadian Food Inspection Agency abandon the proposal to implement the adoption of End Point Royalties (EPR's) or farm saved seed "trailing royalty contracts".

**STATUS:** Provincial

**RESPONSE**

**CANADA FOOD INSPECTION AGENCY**

Thank you for sharing your letter of February 11, 2019, which includes the seed royalty resolution (Resolution E2-19: No Royalties on Farm Saved Seed), passed by the

Agricultural Service Board. I appreciate you taking the time to write to me about this important matter.

As you may be aware, Agriculture and Agri-Food Canada and the Canadian Food Inspection Agency were asked by the Grains Value Chain Roundtable, a consultative body with broad representation from across the value chain, to launch public consultations on two proposed seed royalty models. The purpose of these proposed “value-creation” models are to stimulate greater investment and innovation in Canada’s cereal sector. The first phase of the consultative process was launched in late 2018 and is an initial step in what government views as a multi-stage discussion process.

The Government of Canada understands that many farmers place considerable value on their ability to save seed and often choose specific crop kinds and varieties that allow for replanting of saved seed in subsequent years. At the same time, a large number of agriculture-sector-stakeholders have signaled a desire for Canada to consider some form of value-creation model that would allow increased investment in wheat variety development by both public and private breeders across the country. Many producers see increased investment in research and breeding as key to ensuring the long term profitability and competitiveness of Canada’s cereals sector.

The government remains open to hearing all perspectives on this matter, and will consider the feedback heard to inform next steps in the consultative process.

**GRADE: Accept in Principle**

**COMMENTS**

The Committee feels that since the consultation is ongoing that the grade “Accept in Principle” is most appropriate. The Committee encourages all ASBs to continue to monitor and provide input into this consultation.

The Committee discussed this with the Minister of Agriculture and Forestry. The Committee recommended that an end user tax on products like bread, rather than royalties on producers that use the seed, be implemented. The Committee asked the Minister why Canadian researchers can’t access funds from WGRF for public plant breeding programs. It seems that WGRF has funds but no one seems to know how the money is being spent. The Minister replied that the Committee needs to work on a plan to present to WGRF on how money should be spent to support public plant breeding programs.

ASB Comments varied with some expressing support for a royalty system to encourage industry to research and develop new varieties with others expressing strong support to abandon the royalty proposal.

# Update on Previous Years' Resolutions

## 2018 Resolutions

### **1-18: Environmental Stream Funding of the Agricultural Service Board Grant Grade: Accept in Principle**

Update from Doug Macaulay, Manager, Agricultural Service Board Unit, Alberta Agriculture and Forestry:

AF has discussed this resolution and whether to change timelines in the Terms and Conditions so they align with our fiscal year (April 1-March 31) from the current (January 1 – December 31). After much discussion we have decided to continue to align with the MGA and therefore will not be changing the timelines in the Terms and Conditions at this time.

RESOLUTION 1-18 ENVIRONMENTAL STREAM FUNDING OF THE AGRICULTURAL SERVICE BOARD GRANT: <https://agriculturalserviceboards.com/previous-year-resolutions/2018-resolutions/#jump-resolution-1-18>

I would be available to discuss this decision in more detail at our next ASB Provincial Committee meeting.

### **2-18: Appeals to the Minister Under the *Weed Control Act* and *Agricultural Pests Act* Grade: Unsatisfactory**

Resolution 2-18 requested that Alberta Agriculture and Forestry (AF) amend the *Agricultural Pests Act* and *Weed Control Act* to hear and determine appeals to the Minister within a 30 day time frame. AF's response indicated they were not supportive of a legislated time frame as they needed appropriate time to conduct investigations in a manner that was transparent and evidence based. The resolution response indicated that AF was willing to review their process to determine if there was a way to hear and determine appeals in a more timely manner. AF announced to the Committee and AAAF in March 2019 that outlined a pilot program for appeals made under the *Weed Control Act*. The intent of this new process was to reduce the time for a decision to be made for appeals made to the Minister.

The Ministerial Review process pilot project outlined that all appeals would be an in person hearing process. The hearing would be overseen by an adjudicator with legal training and who was familiar with agriculture. The adjudicator would review the appeal and make their



recommendation to the Minister for the outcome of the appeal.

The Committee discussed the pilot project with ADM Curran at their March meeting and expressed their concerns with the process but decided it would be best to let the pilot project proceed and review the outcomes once the first review had gone through the new process.

The Committee understands that one appeal to the Minister has gone through this process. The Committee plans to meet with the municipality involved and ADM Curran to review how the process worked and if it was fair to all parties involved. The Committee will continue to advocate for changes to be made to the Ministerial Review appeal process until a process that benefits AF and ASBs is created.

This process has been included as part of the review by the government's "Red Tape Reduction Action Plan".

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#### **4-18: Weed Control on Alberta Vacant Public Lands Within Green Areas**

##### **Grade: Incomplete**

The Committee brought this up with the Minister. The Minister replied that he didn't have adequate knowledge in this area and this was the first time that this issue had been brought up with him. The Minister's staff replied that this was part of the Public Lands program but they would have to look into funding and budgets more. The Minister appreciated this being brought to his attention and said he would investigate more. The Committee reminded him of his responsibility under the *Weed Control Act* and how everyone needs to be involved with working to manage regulated weeds.

#### **5-18: Wildlife Predator Compensation Program Enhancement**

##### **Grade: Accept in Principle**

The Committee discussed the Wildlife Predator Compensation program in some detail with the Minister of Environment and Parks and the Director of Fish and Wildlife. The Committee is pleased that the Minister is considering a review of the Predator Compensation Program with a working group that would include ASBs. The Committee looks forward to participating in this working group and will continue to advocate for changes to be made to the Predator Compensation Program based on resolutions brought forward by ASBs.

#### **6-18: Review of Agriculture Financial Services Corporation (AFSC) Crop Insurance Program**

##### **Grade: Unsatisfactory**

Reviewing AFSC was listed as a priority for the new government. The document "Alberta Strong and Free" on page 28 states that the government will "streamline the Agriculture Financial services Corporation to improve services and responsiveness to farmers." This review has been started as part of the government's "Red Tape Reduction Action Plan".

AFSC's lending mandate has been reviewed as part of this plan and to date the decision has been made to implement the AFSC lending mandate that was approved in January 2018. This new mandate will provide assistance to agriculture processors, producers and agri-businesses. Implementation of this mandate includes establishing an agribusiness lending group to work with agricultural producers. (Source: alberta.ca)

The Committee continues to monitor this resolution and advocate for more changes to be made to AFSC as part of the "Red Tape Reduction Action Plan" to make AFSC programs more responsive to farmers.

### **11-18: Organic Food Testing and Labeling**

**Grade: Accept in Principle**

Resolution 11-18 requesting Alberta Agriculture and Forestry (AF) advocate for better labelling of organic products and for additional testing to be conducted by CFIA and other agencies to assure organic claims are true. The response from AF indicated that they were working on a new Act to endorse the national standard while CFIA responded that they do routinely and randomly check products that claim to be organic to ensure that all products meet the Canadian Organic Regime (COR). The Committee graded this resolution as "Accept in Principle" based on the fact that a new Act was in development regarding organic standards.

The "*Supporting Alberta Local Food Sector*" Act was passed on May 30, 2018. This Act now requires all producers that claim their food is organic to be certified and meet the COR standards. Producers previously could claim their food was raised to be "organic" in Alberta without having any proof of certification.

The Committee appreciates the work completed by the government to pass this Act and supports the new requirement for all organic producers to be certified to meet the COR requirements and feels that this will decrease the number of products falsely being advertised as organic.

The *Supporting Alberta Local Food Sector Act* is found at:  
<http://www.qp.alberta.ca/documents/Acts/s23p3.pdf>

Relevant sections of the Act are found in the Appendix.

### **1-17: Vegetation Management on Alberta Provincial Highways**

**Grade: Accept in Principle**

The Provincial Committee continues to monitor the progress made by Alberta Transportation in carrying out the vegetation management plan implemented in 2018. This is a four year plan and the Committee plans to meet with Alberta Transportation in 2020 to review the plan.

### **3-17: Incorporating Agriculture and Agri-Food Education in the Classroom**

#### **Grade: Incomplete**

The Committee continues to monitor Alberta Education's curriculum review and provide input as needed. The Committee strongly support the work being done by organizations such as "Ag for Life" that provide resources for teacher to incorporate agriculture into their classrooms.

The Committee has not had an opportunity to meet with the Education Minister to discuss this resolution.

### **E3-17: Eradication of Bovine Tuberculosis and Brucellosis Prevalent in Bison Within and Surrounding Wood Buffalo National Park**

#### **Grade Unsatisfactory**

The Committee discussed this with the Minister and his response was that it was complicated by legislation related to Species at Risk. His department continues to monitor it but feels that not much can be done due to federal Species at Risk legislation.

Parks Canada has released a plan that addresses bovine tuberculosis and brucellosis as part of their recovery strategy for wood buffalo in the park. Details on their strategy can be found at the link below or the 2018 Report Card on the Resolutions.

[https://www.pc.gc.ca/en/pn-np/nt/woodbuffalo/decouvrir-discover/science\\_nature/bison](https://www.pc.gc.ca/en/pn-np/nt/woodbuffalo/decouvrir-discover/science_nature/bison)

## Expiring Resolutions

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

The following resolutions are set to expire December 31, 2019.

Resolution Number	Resolution Name	Grade
1-15	Adapt Crop Insurance to Protect Clubroot Tolerant Varieties	Unsatisfactory
2-15	Pest Control Act – Clubroot	Accept in Principle
3-15	Standardized Clubroot Inspection Procedure	Accept in Principle
4-15	Additional Funding for Municipalities dealing with Prohibited Noxious Weeds that come from Outside the Province of Alberta	Accept in Principle
5-15	Maintaining Canada Thistle ( <i>Cirsium arvense</i> ) as a Noxious Weed under the Alberta <i>Weed Control Act and Regulation</i>	Accept in Principle
8-15	Monitor Ergot Levels in Livestock Feeds	Accept in Principle
9-15	Elk Quota Hunt	Accept in Principle
10-15	Alberta Fish and Wildlife Officer availability	Accept in Principle
12-15	Agriculture Plastics Recycling	Unsatisfactory
14-15	Management of Farm and Agricultural Leases	Accept in Principle
15-15	Farm Property Assessment	Accept in Principle
E1-15	<i>Fusarium graminearum</i> Management Plan	Accept in Principle

## Updates on Expiring Resolutions

### **Resolution 9-15**

The Committee had an opportunity to discuss resolution 9-15 with the Minister of Environment and Parks. The Committee expressed concern with the number of elk in parts of the province and requested additional action for managing elk within those areas. The Minister replied that some of the problem is the conflict between hunters and landowners not allowing hunters to go onto their land. That being said, the Minister said there were several things his department was looking at including allowing extra landowner tags, possibly having multiple elk seasons for hunting, and including requiring producers prove they allowed reasonable access to land for ungulate management for producers seeking 20 year grazing leases or elk fencing.

### **Resolution 12-15**

The Committee also discussed resolution 12-15: Agriculture Plastics Recycling with the Minister and thanked him for the pilot project that started in 2019. The Minister indicated that he was excited about the pilot project and looking forward to seeing the outcome of the results. He indicated that he planned to look at making the program permanent once he saw results from the first year of the project. He indicated that he had been talking with Saskatchewan about their program and felt that a similar program in Alberta would be of benefit to the province.

## Current Resolutions

1-15	Adapt Crop Insurance to Protect Clubroot Tolerant Varieties	Unsatisfactory
2-15	Pest Control Act - Clubroot	Accept in Principle
3-15	Standardized Clubroot Inspection Procedure	Accept in Principle
4-15	Additional Funding for Municipalities dealing with Prohibited Noxious Weeds that come from Outside the Province of Alberta	Accept in Principle
5-15	Maintaining Canada Thistle ( <i>Cirsium arvense</i> ) as a Noxious Weed under the Alberta <i>Weed Control Act and Regulation</i>	Accept in Principle
8-15	Monitor Ergot Levels in Livestock Feeds	Accept in Principle
9-15	Elk Quota Hunt	Accept in Principle
10-15	Alberta Fish and Wildlife Officer availability	Accept in Principle
12-15	Agriculture Plastics Recycling	Unsatisfactory
14-15	Management of Farm and Agricultural Leases	Accept in Principle
15-15	Farm Property Assessment	Accept in Principle
E1-15	<i>Fusarium graminearum</i> Management Plan	Accept in Principle
1-16	Proactive Vegetation Management on Alberta Provincial Highways	Unsatisfactory
2-16	Reinstate Provincial Funding for the Canada and Alberta Bovine Spongiform Encephalopathy (BSE) Surveillance Program	Unsatisfactory
3-16	Agricultural Plastics Recycling	Accept in Principle
5-16	Climate Stations	Accept in Principle
6-16	Compensation for Coyote Depredation	Accept in Principle
8-16	<i>Species at Risk Act (SARA)</i>	Accept in Principle



E1-16	Bill 6: <i>Enhanced Protection for Farm and Ranch Workers</i>	Accept in Principle
1-17	Vegetation Management on Alberta Provincial Highways	Accept in Principle
2-17	Ensuring Competition for Seed and Crop Protection Products	Incomplete
3-17	Incorporating Agriculture and Agri-Food Education in the Classroom	Incomplete
E3-17	Eradication of Bovine Tuberculosis and Brucellosis Prevalent in Bison Within and Surrounding Wood Buffalo National Park	Unsatisfactory
1-18	Environmental Stream Funding of the Agricultural Service Board Grant	Accept in Principle
<del>2-18</del>	<del>Appeals to the Minister Under the <i>Weed Control Act</i> and <i>Agricultural Pests Act</i></del>	Unsatisfactory
4-18	Weed Control on Alberta Vacant Public Lands Within Green Areas	Incomplete
5-18	Wildlife Predator Compensation Program Enhancement	Accept in Principle
6-18	Review of Agriculture Financial Services Corporation (AFSC) Crop Insurance Program	Unsatisfactory
7-18	Crop Insurance for Alberta Fruit Producers	Accept the Response
9-18	Farm Direct Marketing of Eggs and Products Using Eggs	Accept in Principle
10-18	Proposed Federal Tax Changes	Accept the Response
11-18	Organic Food Testing and Labeling	Accept in Principle
1-19	Loss of 2% Liquid Strychnine	
2-19	Wildlife Predator Compensation Program Enhancement	
3-19	Deadstock Removal	
4-19	Carbon Credits for Permanent Pasture and Forested Lands	
5-19	Multi-Stakeholder Committee to Work at Reducing the Use of Fresh Water by the Oil and Gas Industry in Alberta	
6-19	STEP Program Agricultural Eligibility	
E1-19	Access to Agriculture Specific Mental Health Resources	
E2-19	No Royalties on Farm Saved Seed	

# Appendix

## Resolution 4-19

### Directive for Water Licensing of Hydraulic Fracturing Projects – Area of Use Approach

February 22, 2018

Source: <https://open.alberta.ca/publications/directive-for-water-licensing-of-hydraulic-fracturing-projects-area-of-use-approach>



<b>Title:</b>	Directive for Water Licensing of Hydraulic Fracturing Projects – Area of Use Approach
<b>Number:</b>	AEP, Water Quantity, 2018, No.1
<b>Program Name:</b>	Water Policy
<b>Effective Date:</b>	February 22, 2018
<b>This document was updated on:</b>	

#### Scope and Applicability

This directive does not replace or override requirements specified in other guidelines, directives, regulations, policies or legislation in effect at the time of application for a licence under the *Water Act*.

This directive applies to hydraulic fracturing projects, typically with a longer development horizon, which are planned to occur over a specified geographic area and that have ongoing water needs over the life of the project. These projects are generally distinguished by:

- an operating area that is identifiable and constrained by mineral tenure rights held by an applicant;
- multiple hydrocarbon wells to be developed within those specific and defined geographic areas;
- hydrocarbon wells that are completed using multi-stage hydraulic fracturing techniques; and
- well pad and hydrocarbon well development that is staged to occur over many years.

For this type of oil and gas project, there are unique characteristics warranting development of a tailored approach to water licensing. These include:

- most of the water being required prior to the operating phase of each hydrocarbon well (i.e. used initially only for the fracturing of a formation, with no ongoing water need in the hydrocarbon production phase of the well);
- the exact surface location of each hydrocarbon well over the life of the project not being known at the outset of the project; and
- the surface areal extent of where an operator is authorized to explore and develop for oil and gas being known and defined by the mineral tenure rights.

A distinguishing characteristic is the longer-term need for water over the life of a project, where use at a single location is short-term, and the ongoing water use is characterized by spatial movement in progression to the next hydrocarbon well development location.

## Intent

This directive provides direction to the Alberta Energy Regulator to ensure a consistent approach in evaluating the various factors regarding water licensing of hydraulic fracturing projects with multi-year operations occurring over an area of use constrained by mineral tenure rights. The directive also provides direction to applicants when preparing licence applications under the *Water Act*.

## Background

Mineral tenure rights held by oil and gas companies can span a wide range of land areas, from multiple sections of land and up to many townships in size. As a consequence, multi-stage hydraulic fracturing projects are generally planned in a sequence of development and can extend over larger geographic areas.

The conventional approach for licence applications, typically for smaller areas or projects where the details of the surface locations of water use are provided at the application stage, is difficult to apply to longer-life multi-stage hydraulic fracturing developments. Traditionally, applications to divert water for oil and gas wells have been handled on a "well-by-well" basis by issuing temporary diversion licences for each well completion, or for each well pad development. However, this approach generally would not explicitly consider potential cumulative effects within long-life projects; and also does not provide sufficient regulatory certainty or incentive for applicants to consider longer-term investments in infrastructure that could reduce the overall impact of activities.

To better enable the policy outcomes around water use and conservation by the energy sector, longer term, multi-year licences are the preferred water allocation approach for multi-stage hydraulic fracturing projects. These types of projects require greater flexibility regarding use of water, where the project areas are known at the time of application but exact locations where water will be applied become known as development plans are finalized and operational phases commence. There is a need to:

- balance avoidance of speculation in the water resource with flexibility regarding how the precise locations of water use are identified;
- clarify the areal considerations and requirements for licences, including the information the proponent is required to provide for these types of applications;
- demonstrate that the projected and likely impacts of a project within an area have been adequately assessed, considered, and can be mitigated.

## Purpose of Licensing using an Area of Use Approach

The purpose of developing this directive for hydraulic fracturing projects is to allow operational flexibility by a licensee within specific and defined geographic areas of oil and gas development, while remaining within provisions of the *Water Act*.

Compared to the traditional licensing approach (obtaining temporary licences for each well), this directive is intended to enable better management of water resources; planning for longer-term infrastructure and supply options; and address water supply risk for operators.

This directive provides a set of consistent considerations and requirements for implementing this tailored approach to issuing a licence. This directive does not preclude other types of *Water Act*



authorizations such as temporary diversion licences, preliminary certificates and approvals, which continue to be used when appropriate to the circumstance of an application.

### Alternatives Assessment

It is expected that proponents will seek the use of alternative water sources before considering the use of non-saline water for their projects. Alternative water sources include, but are not limited to, recycled flowback, recycled municipal or industrial wastewater, saline groundwater, groundwater containing hydrocarbon compounds (excluding methane) and/or non-water technologies. As part of the application submitted under this directive, proponents must include an alternatives assessment that demonstrates no other economically and environmentally feasible water sources are available over the proposed term of the licence. The 2006 *Water Conservation and Allocation Guideline for Oilfield Injection* provides guidance on conducting alternatives assessments.

### Demonstrated Need for Water

To address potential speculation in the water resource, the licence application must demonstrate the need for the allocation of water being requested by providing, at a minimum, the following information:

- Project area, including the mineral lease boundaries to be developed and any boundaries of major river basins as defined in the *Water Act*.
- Development plan for the project (concept/scoping level) that identifies the well density needed to develop the resource (e.g. #wells/section).
- Schedule of development (concept/scoping level) that identifies the potential annual water need from year zero to the anticipated end of the project.
- Total volume of water needed per well (e.g. m<sup>3</sup>/well). The information must be sufficient (provide data, models, assumptions) for justification of the allocation request.
- Number of years expected to complete the project.

Ongoing demonstration of the need for water is required through the life span of the project, within a reporting period specified by the Director. As a condition of the licence, licensees must be required to report supporting information, including, but not limited to, the following:

- The volumes of water diverted from the source; the volumes of water used; and the water use per energy well, compared to estimates submitted with the application and any previous reports;
- For the upcoming reporting period, an estimate of the monthly volume of water that is expected to meet the needs of the project operations;
- Changes to the:
  - o mineral lease boundaries within the project area; and
  - o well density plan;that may result in a change from the original schedule of development, which would affect the timelines required to complete the project.

Licences must include a condition that allows for Director-initiated amendments to reduce the allocation of water and/or reduction in the term of the licence.

Prior to considering a reduction of volume and/or reduction of the term by the Director, a 30-day written notice (or other time period specified by the Director) will be sent to the licensee requesting additional information that justifies the ongoing and future water needs under the current allocation. If there has been a consequential deviation from an operator's development plan and water need cannot be demonstrated, the Director must have the discretion to amend the annual allocation (volume, rates of diversion, timing) and/or the licence term may be reduced.

The Director also has ability to apply both statutory (preliminary certificates) and administrative (licence conditions) instruments to provide necessary regulatory oversight and controls to manage water needs that may change over time or are subject to variable conditions (for example, "ramping-up"/phasing; economic factors; conditional buildout).

### One Point of Diversion per Licence

Water licences issued under this approach should be limited to one Point of Diversion per licence from either a surface or a groundwater source. The recommended procedure limits applications to one point of diversion with one priority-of-use date per licence, as a means to limit opportunities for speculation in the resource.

With respect to groundwater sources, for the purpose of this directive one Point of Diversion is a well or multiple wells contained within the equivalent area of one quarter section and completed within the same aquifer.

### Appurtenance

Appurtenance<sup>1</sup> conditions in water licences are mandatory. The licence condition must specify appurtenance to land or undertaking; it cannot be both. A licence is typically appurtenant to the Point of Diversion, which determines where a diversion is taking place within a basin. The Point of Diversion is the precise physical location where water is withdrawn from a specified source. A licence may also be appurtenant to a Point or Points of Use, which is description or specification of where water that has been diverted may be used or applied.

For licensing of multi-stage large scale hydraulic fracturing projects, the licence must be appurtenant to the Point of Diversion only. These types of licence are not made appurtenant to a Point of Use. The use and application of water is regulated separately with licence conditions, specifying a point of use or points of use as a bounded area.

The Point of Diversion must be known at the time of application and can only be amended in accordance with provisions in the Water Act under section 54(1)(b)(vi). The appurtenance statement in the licence regarding the Point of Diversion should refer to land and not the undertaking, as:

- reference to land is more appropriate given the nature of these projects, which are limited and described by access to mineral rights based on surface locations; and
- consistent interpretation based on AEP's *Guidelines Regarding Appurtenance* would be expressed as appurtenant to lands for industrial projects involving mineral extraction.

<sup>1</sup> Appurtenance means belonging to, accessory or incident to, adjunct to, appended or annexed to. Refer to AEP's *Guidelines Regarding Appurtenance* for additional information.



## Point of Use

This water licensing approach for multi-stage hydraulic fracturing projects allows for a generally described and spatially limited Point of Use Area to be identified at the time of application. The Point of Use becomes specified when water is applied during the term of the licence. Various aspects regarding the Point of Use must be incorporated into licences using this approach as described below.

### Point of Use Area Boundary

The applicant must identify the sub-surface mineral lease area(s) that the application is based on and held at the time the application is submitted and where water will be used for drilling and completion (i.e. hydraulic fracturing) purposes. The Sub-surface Mineral Lease Area is a principal component of a specific Point of Use Area, identified within the licence. Multiple sub-surface mineral lease areas to be included under one licence shall generally be contiguous with or in close proximity to one another.

The Point of Use Area is the extension of the Sub-surface Mineral Lease Area to the surface, with a small and justifiable buffer that allows for related ancillary surface activities related to the hydraulic fracturing project, that require water. Examples of these activities are road access and maintenance, dust suppression, construction, related infrastructure, etc. The Point of Use Area should generally align with the licensee's mineral leases to be held under the project water licence and it must encompass all of the Sub-surface Mineral Lease Area of the licensee. This is best identified in the licence and application using a detailed map, diagram or similar visual identification, which can be referenced as a Plan in the licence. The licence must specify the purpose(s) and uses for which water may be applied within the Point of Use Area, and within the Sub-surface Mineral Lease Area as appropriate.

The Point of Use Area can only be amended in accordance with provisions in the *Water Act* under Section 54.

Watershed boundaries should be identified on maps or diagrams; any major river basin boundaries (reference Section 10, *Water (Ministerial) Regulation*) must be identified in applications. Transfer of water across the boundary of a major river basin is restricted by Section 47 of the *Water Act*, requiring a special Act of the Legislature to authorize the issuing of such a licence. To avoid triggering special provisions required for inter-basin transfer of water, the boundary of the Point of Use Area must be indicated on plans and clearly identified as constrained to within the same major river basin as the Point of Diversion.

### Size of Point of Use Area

The Point of Use Area should be no larger than the equivalent area of 16 townships. The Sub-surface Mineral Lease Area will be equal to or smaller than the Point of Use Area and will comprise one or more contiguous area block(s) generally corresponding with mineral leases within the Point of Use Area held by the operator at the time of application for a water licence.

The Director may consider a larger Point of Use Area than the specified maximum in this directive, if there is clearly demonstrated net environmental benefit compared to assessed alternatives (for



example; a reduced or less significant spatial footprint; fewer independent water sources needed; ability to use a source with less potential for adverse impact).

#### **Specified Upon Use**

Within a reporting period specified by the Director, the licensee is required as a condition of the licence to report the specific surface locations where the water allocation under the licence was used for the hydraulic fracturing project within the Point of Use Area. These surface locations must align with the Point of Use Area in the licence.

#### **Altering Point of Use Area**

The Point of Use Area can only be amended as provided for in the Water Act. A new licence must be obtained for new Point of Use areas. The Point of Use Area boundary cannot be expanded. A reduction in the Point of Use Area can be authorized through a licence amendment.

#### **Altering Sub-surface Mineral Lease Area**

Any proposed changes to the Sub-surface Mineral Lease Area must be submitted to the Director for consideration. Director discretion in accordance with section 54(5) of the Water Act will determine if the changes are significant enough to require an amendment, or if a simple update to the plan is sufficient.

##### **Addition**

In circumstances where new mineral leases are acquired within the existing Point of Use Area, the licensee must submit an application under the Water Act to amend the Sub-surface Mineral Lease Area in the licence. In such cases small additional area block(s) can be proposed as new sub-surface mineral lease area(s) within the original Point of Use Area. The proposed sub-surface mineral lease area(s) shall be contiguous with or in close proximity to the original sub-surface mineral lease area(s), and shall apply to the same target formation(s).

**An application to amend cannot request an increase in the volume of the diversion of water specified in the licence. If a change in the Sub-surface Mineral Lease Area results in a need for additional water, a new licence is required.**

##### **Disposition**

The removal of a sub-surface mineral lease area, usually due to the sale, transfer or expiry of a mineral lease, may require an update to the plan on the licence. The Director may consider a reduction in allocation volume or a change in diversion rate or timing to reflect the disposition of the lands, if it materially affects the schedule of development for the project. Depending on the extent of the removal of sub-surface mineral lease area(s), a reduction in the Point of Use Area may also be required by the Director.

Other operators who have acquired new mineral leases under such circumstances (i.e. through the disposition of others) must apply for a separate water licence for those newly acquired leases.

## Term Length

Unless otherwise established in a water guideline or subject to an amendment of the *Water (Ministerial) Regulation*, the term of a licence under this approach is 10 years or less. Licensees can submit applications to renew licences for subsequent terms of up to 10 years. The Director must also specify when a licence is not subject to further renewal. Other terms or conditions may be revised in accordance with Section 59 of the *Water Act*.

## Water Release

A general expectation of hydraulic fracturing activity is an effectively fully consumptive process, where water, makeup waters and flow back are generally mixed throughout the process and injected or eventually disposed of, and not returned to the environment. Circumstances of well drilling and completions are not always fully predictable and there may be potential for water, capable of discharge back to environment, to be generated.

Based on authorization procedures already in general use, this directive requires that potential water return be addressed through the use of standard licence conditions. Licensees must be required to ensure that prior to any discharge or release of fresh or non-saline water to the environment:

- all applicable protocols and recommended practices to prevent the spread of aquatic invasive species are implemented (including the possibility that no release can be made, regardless of satisfying all other water release criteria);
- water must meet acceptable surface water quality and groundwater quality guidelines;
- the return is made to a watershed where the original diversion took place;
- licensees employ erosion prevention and other environmentally precautionary measures; and
- consent of immediate and downstream landowner(s), as appropriate, is obtained.

## Policy and Regulatory Alignment

Licences issued under this approach may be subject to the requirements of new or updated policies or regulatory tools that are developed in the future. Furthermore, this directive may be updated in the future to ensure alignment with new or updated policies or regulatory tools that are developed.

Original signed by: \_\_\_\_\_

Date: February 16, 2018 \_\_\_\_\_

Karen Wronko, Executive Director  
Water Policy  
Environment and Parks \_\_\_\_\_

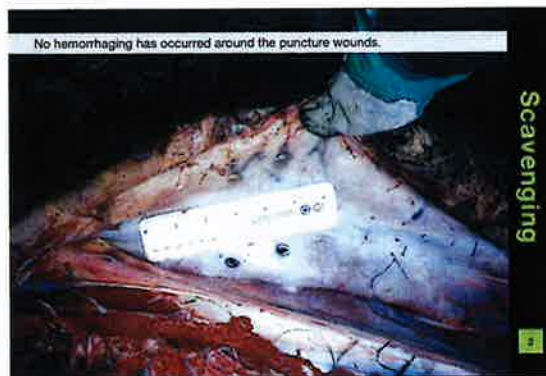
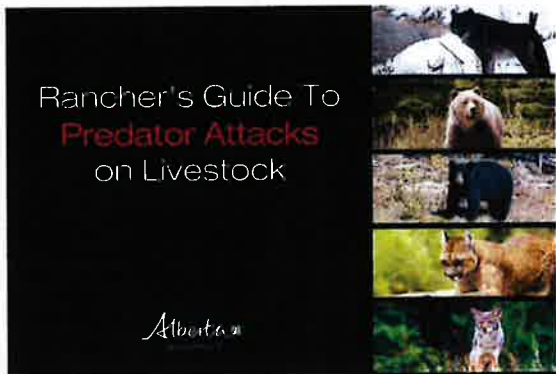


# Resolution 5-18

## Rancher's Guide to Predator Attacks on Livestock

March 2018

Source: <https://open.alberta.ca/dataset/b5bee14e-1339-48b7-9388-b71bc6d378d1/resource/8fbe1c21-cb35-4485-8df8-439c8e83e7b7/download/ranchersguidetopredatorattacks-mar2018.pdf>



### Predation or Scavenging?

Bears, wolves, cougars and coyotes can be scavengers as well as predators.

#### Evidence of Scavenging

- There may be no blood on the ground around the carcass, or blood may have drained onto the ground from body cavities such as the nose.
- Lacerations and puncture wounds found on the hide's exterior do not show corresponding signs of hemorrhaging on the interior of the hide or in adjacent tissue.
- The body may be curled up with the legs tucked in, indicating the animal died of disease or other condition not related to predation.

#### Evidence of an Attack

- There may be blood on the ground indicating the animal bled when attacked. Blood stains may be spread widely around the dead animal. There may be a blood trail.
- Lacerations and puncture wounds on the hide's exterior will show corresponding signs of hemorrhaging on the interior of the hide and tissue. Blood may also drain from puncture wounds.
- The body may be stretched out in an unnatural position.

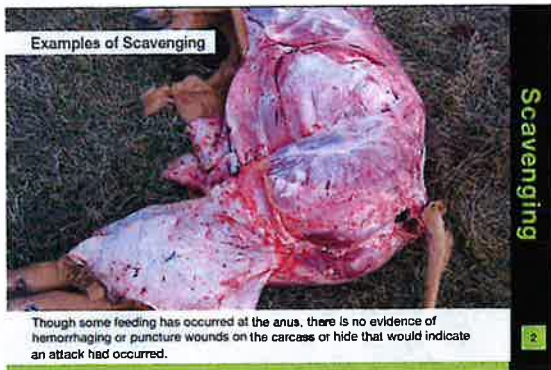
Scavenging

### Common Attack Zones on Adult Livestock

Indications: hemorrhaging/bruising/lacerations/tears/bite marks/crushed bones

	Wolf	Grizzly Bear	Black Bear	Cougar	Coyote
Tail	X				X
Hindquarter/Groin	X				X
Flank	X				X
Behind and under front leg	X				X
Withers		X	X		
Spine		X	X		
Neck		X	X	X	X
Throat				X	X
Skull		X	X	X	
Spacing between canine teeth	1½-2"	2-3"	1½-2½"	1½-2¼"	1-1 3/8"
Diameter of canine tooth punctures	¼"	¼"	¼"	¼"	1/8"

Animal Attack



### Characteristics of a wolf attack

#### Wolves chase their prey.

During the attack, prey are weakened through pursuit and blood loss.

Wolves normally attack their prey from behind.

Bite marks and lacerations are often found on the animal's hindquarters, and the tail may also be missing or stripped of its hide.

Wolves may attack other parts of the body.

Bite marks can also be found on the nose, under and behind the front legs and on the ears.

When wolves prey on younger or smaller animals, they may centre their attack on the animal's back.

#### Wolves use their teeth in an attack.

The biting causes hemorrhaging, which is most evident on the inside of the hide and in the adjacent tissue.



Wolf



**Wolf Attacks**

The wolf attack on this yearling resulted in a stripped tail, hemorrhaging in the hind quarters and flank, and damage under and behind the front legs.

Wolf

10



The wolf attack on this spring calf resulted in extensive tissue damage to the back. The puncture wounds will be evident on the hide's exterior.

Wolf

10



The wolf attack on this mature cow resulted in damage to the perineum. The lacerations from the wolves' teeth are broader than those from a coyote.

Wolf

11

**Characteristics of a bear attack**

Bears ambush their prey. In the attack, bears will not usually pursue their prey over long distances. However, once the animal is dead, they may drag it some distance to feed under the protection of cover.

Bears normally attack their prey from the top of the animal. Lacerations may be left by the bear's teeth when it bites and by its claws when it attempts to grip its prey during the attack.

Bears are opportunistic hunters and feeders.

Bears will take advantage of any food source when they have the opportunity to do so. Both black and grizzly bears are known to prey on all age classes of

cattle, as well as swine and sheep. Because grizzlies are larger, they may prey on larger animals, such as mature cows. Black bears prey more heavily on calves. Unlike wolves and cougars, bears often eat the stomach contents (rumen) of livestock.



Bear

11



Black/purple stains on an older, inverted hide shows hemorrhaging caused in an attack. Evidence of bite marks will be visible on the exterior of the hide.

Wolf

12



**Bear Attacks**

Bear attack to the withers of this spring calf resulted in extensive tissue damage.

Bear

12



On the left photo are fresh wounds from a wolf attack. On the right photo are older wounds that have started to heal.

Wolf

13



The bear attack on this calf resulted in crushed nasal bones.

Bear

13





### Characteristics of a cougar attack

**Cougars stalk their prey**  
When hunting, cougars sneak up on prey and then rush it from a short distance away. They will not pursue their prey over long distances. However, once the animal is dead, they may drag it some distance to feed under the protection of cover.

**Cougars are efficient hunters**  
Cougars normally kill their prey in one of two ways: by biting at the head and neck to crush the skull and neck bones, or by biting at the throat to crush the windpipe. Cougars use their strength and sharp claws to grip their prey. In a struggle, cougars are normally strong enough to maintain hold on their prey with minimal re-adjustment. Lacerations may not show marks from all five of the

cougar's claws. The claw marks are knife-like, with very clean edges. Cougars prey on a variety of livestock. Cougars typically attack sheep, goats, horses and exotic animals, such as llamas and alpacas. Cougars feed on organs first. Cougars feed on the heart, lungs and liver first. They use their teeth to chew out a clean entryway rather than tearing at the tissue. Before feeding, cougars pluck out the wool or hair from the hide. Unlike bears, cougars do not normally eat the stomach, intestines or their contents.

Cougar





### Characteristics of a coyote attack

Coyotes attack in a manner similar to both wolves and cougars. Coyotes commonly hunt as individuals, but like wolves, may also hunt in packs, attacking their prey from the rear. Like cougars, they may also suffocate their prey by crushing the windpipe.

Coyotes are smaller than other predators and will leave smaller punctures and lacerations. Lacerations and puncture marks may also show the coyote needed to re-adjust its grip on its prey during the attack. Coyotes normally take prey that is smaller.

Sheep, goats and young calves are susceptible to coyote predation.



Coyote

21

### The Wildlife Predator Compensation Program

The livestock covered under the program are cattle, bison, sheep, swine and goats. Horses and exotic animals, such as llamas, alpacas or mini-donkeys, are not covered.

Producers may qualify for compensation when livestock are killed or injured by a grizzly or black bear, wolf, cougar or eagle. Attacks by coyotes or incidents of post-mortem feedings are not covered by the compensation program.

Costs relating to both medications and veterinarian fees can be compensated up to the value of the injured animal.

If producers suspect that a predator has killed or injured their livestock, they are advised to contact the nearest Fish and Wildlife office of Justice and Solicitor

General as soon as possible. Call the Report-A-Poacher hotline at 1-800-642-3800 to reach a Fish and Wildlife officer. An investigator will examine the animal. The producer may be advised to move or cover the animal prior to the investigator's arrival, which will help ensure that evidence is not lost due to scavenging.

22



The puncture wounds on this sheep are typical of a coyote attack. The inter-canine spacing of 1" is less than the inter-canine spacing of a cougar.

Coyote

23

### You can help

Report suspected livestock losses early. Losses must be reported within 3 days in order to be eligible for compensation under the Wildlife Predator Compensation Program. Early detection and reporting allows for more effective mitigation and control actions that may limit further livestock losses.

**Share information with your neighbours.** Communicating information concerning livestock losses to predators may allow for others to increase vigilance, mitigation and husbandry practices and may limit additional livestock losses.

**Preserve evidence.** While the protection of public safety and property is a priority, if there is a delay in completing the investigation, collection of photographic evidence from the scene may preserve important evidence that can be lost due to scavenging, further decomposition and other environmental factors.

**Ensure your safety and do not approach a livestock carcass if it is not safe. Do not disturb the scene or livestock carcass.**

Use the form and ruler on the next pages to guide in the collection of evidence which can supplement the investigator's findings.

27



Puncture marks are smaller and lacerations are narrower than those left by a wolf.

Coyote

24

### Reporting

Claimant: \_\_\_\_\_ Date Investigated: \_\_\_\_\_

Location of Loss: Qtr  S  T  R  W

Loss Reported By: \_\_\_\_\_

Dead Livestock:	Age	Sex	Weight	Number Killed
Photos Taken: Y/N				
Overall Scene with Carcass	<input type="checkbox"/>	Evidence of Struggle	<input type="checkbox"/>	
Evidence of Blood at Site	<input type="checkbox"/>	Predator Tracks at Site - Ruler	<input type="checkbox"/>	
Location of Attack	<input type="checkbox"/>	Spacing of Bite - Ruler	<input type="checkbox"/>	



### Barbed Wire Injuries

Barbed wire wounds are often mistaken for lacerations from a cougar attack. The injuries to the front legs and to the lower part of the rear legs are not typical of cougar attacks.

25

### Notes

28

Notes



A Rancher's Guide to Predator Attacks on Livestock provides ranchers with information about wolves, bears, cougars and coyotes and the attack characteristics specific to each predator. This guide is meant for informational purposes only. Call your nearest Fish and Wildlife office if you have questions about preventing predation, or if you suspect that a predator has taken your livestock.

ISBN: 978-1-6071-1503-3 (Hardcover)  
978-1-6071-1501-9 (Online Edition)  
Revised: March 2016





## Resolution 11-18

### Local Food Act (excerpt)

Source: <http://www.qp.alberta.ca/documents/Acts/s23p3.pdf>

## Part 2 Organic Agricultural Products

### Definitions

7 In this Part,

- (a) “advertise” means to directly or indirectly promote the sale of an agricultural product;
- (b) “certification body” means a body that is accredited by the Canadian Food Inspection Agency that is responsible for the certification of agricultural products under the *Organic Products Regulations*;
- (c) “certification record” means a record of certification obtained in accordance with section 8;
- (d) “organic product” means an agricultural product that is certified by a certification body as meeting the *Organic Products Regulations*;
- (e) “vendor” means a person who offers for sale agricultural products.

### Certification

8 A producer or processor who advertises, labels or offers for sale an agricultural product that is produced or processed in the Province for sale in the Province as an organic product must hold the appropriate certification for that product in accordance with the *Organic Products Regulations*.

### Prohibition

9 No person shall advertise, label or offer for sale an agricultural product produced or processed in the Province for sale in the Province using the term “organic”, “biologique”, “organically grown”, “organically raised”, “organically produced” or similar words, including abbreviations of, symbols for and phonetic renderings of those words, or any other term prescribed in the regulations unless the producer of the agricultural product holds the appropriate certification for that product in accordance with section 8.

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OCT 07 2019

CLEAR HILLS COUNTY



September 30, 2019

Enclosed you will find a complimentary master copy of the Northern Commodities – Agriculture report completed under a partnership of the Peace Region Economic Development Alliance (PREDA) and the Regional Economic Development Initiative – Northwest (REDI). This report presents in detail the agricultural commodities grown and bred in the Northwest, the production volumes, the amount that is exported, where these agricultural commodities are exported, and the primary mode of transportation used to get these commodities to export position.

It is hoped that the information contained in this report will be of use to you and your stakeholders when researching, creating, and or negotiating economic development opportunities for the agricultural producers and potential investors in your area.

Copies of the report can be downloaded free of charge from either the PREDA or REDI websites. Master copies, such as the one enclosed, can be printed at a cost of \$35 per (shipping included) upon request to PREDA at [admin@peacecountrycanada.com](mailto:admin@peacecountrycanada.com).

This report is one of three in a series that are being completed under the PREDA / REDI partnership. Our next report, Northern Commodities – Oil & Gas, will be released at the end of October 2019. The final report, Northern Commodities – Forestry, will be released in February 2020.

If you have any questions, please do not hesitate to contact us.

Regards,

Elaine Garrow  
Chair – PREDA

Lisa Wardley  
Chair – REDI

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OCT 07 2019

CLEAR HILLS COUNTY

September 2019

## Northwest Alberta – Agricultural Commodities

What are the products?

How much is produced?

Where are the products exported?

How are the products transported?

**In Partnership**

*Alberta*



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## Executive Highlights

Northwest Alberta represents 3% of Canada's farmland. The agricultural region is referred to as the "Peace Country"; the most northern agricultural region in the world; and frequently noted for the superior quality of its agriculture products. This report focuses on commercial agricultural products grown and bred in the Northwest (e.g. . cereal grains, oil seeds, cattle, pork).

**Northwest Alberta has 4918 farms. A 60/40 split between cropland and pastureland.**

### Cropland:

1. Canola, Wheat, Alfalfa, Dry Field Peas, Barley, Hay, and Oats make-up most of the cropland acres in the Northwest.
2. Almost all the canola, wheat, and dry field peas produced in the Northwest are delivered to the local grain elevators and exported out of the region by rail.
3. The Northwest is Canada's largest producer of Fescue (grass-seed and forage).

### Crop Exports:

1. Alberta generated \$101 Billion in the year 2017 exporting its products. 88.5% of all of Alberta's (which includes the Northwest) export revenues comes from sales to the US.
2. On the global scale Canada ranks 7<sup>th</sup> for Wheat production. Alberta's largest buyers of Wheat are the USA, Japan, and Indonesia.
3. China is Alberta's largest buyer of Canola Seeds. In 2017 China paid \$819Million for Alberta Canola Seeds. Japan, Alberta's second largest buyer of Canola Seeds, earned Alberta \$421Million in export revenues.
4. There were 87 export shipments of Canola Seeds to the United States in the year 2017. Rail transported 19 of these shipments, truck transported 68 shipments.
5. The number of acres in the Northwest dedicated to Dry Field Peas has dramatically increased in the last decade.
6. Alberta generated \$181 Million exporting Dry Field Peas in the year 2017. India is the largest buyer at \$118Million.
7. Oats garnered \$28 Million in export revenues for Alberta – 93% sold to the USA.
8. There were 301 export shipments of Oats in the year 2017- 204 were by truck.
9. Certified Organic Oats (by volume) are largely purchased by Japan and South Korea.

**Executive Highlights (cont'd)**

10. Alberta Barley Seeds are sold to the USA (97%). In general, the seeds do not garner a lot of revenues (898K in the year 2017). Barley Malt however, garnered \$241 Million in the year 2017 - \$40.7 Million of which was sold to California!
11. Alberta generated \$30 Million from the exports of Alfalfa Seeds in the year 2017 – 93% sold to the USA. Alberta is the USA's biggest supplier of Alfalfa seeds. Most sales goes to Idaho - 75%.
12. Alberta generated \$29.4 Million exporting Fescue Seeds – \$28.2. Million was for Creeping Red Fescue. Virtually all Creeping Red Fescue in Canada is grown in the Peace Country!
13. 90% of all fescue was sold to the USA, the largest State being Oregon (branded as the turf grass capital of the world!).
14. Japan purchased \$51Million in Timothy Hay from Alberta in 2017.
15. Export revenues from Hemp products peaked in the 2016 at \$132 Million; the vast majority due to the sale of hemp seeds.

**Pastureland:**

1. The Northwest is Cattle country! At a headcount of 285K, all rural municipalities (13 of them) in the Northwest have cattle. The largest being the County of Grande Prairie with a headcount of 68K.
2. When last counted there were 111K pigs in the Northwest. Only 6 of the 14 rural municipalities reported having pigs. ~~The largest number located in Birch Hills County at 16K.~~
3. There were 295K chickens counted in the Northwest. The largest count was in the MD of Greenview at 59K. The largest egg-producing headcount is in the County of Grande Prairie at 16K.
4. At last count there 47K "Other Livestock" being raised in the Northwest – horses, sheep, goats, alpacas etc.... The largest headcount of "Other Livestock" in the Northwest is Bison, at 6K located in the County of Grande Prairie.

## Executive Highlights (cont'd)

### Pastureland Exports:

1. Fresh Beef accounts 1/3 of all export revenues generated from the sale of animal products. \$1.2 Billion in the year 2017; with 91% shipped directly to the United States. Fresh beef is delivered to 17 States; California being the largest buyer at \$440 Million. TEXAS is second at \$102 Million!
2. Honk Kong was the largest buyer of Alberta Frozen Beef in the year 2017 - \$130 Million.
3. There were 80 export shipments of frozen beef from Alberta in the year 2017. Eleven shipments were transported by Air Cargo, forty-one by truck, and the remaining by ship (majority through Vancouver Port). Alost all truck shipments used Coutts (AB) as the export point to the US.
4. Japan is the largest buyer of Alberta Fresh and Frozen Pork.
5. Live animals are exported from Alberta. In the year 2017: \$17 Million – Horses; \$642 Million – Cattle; and \$58 Million – Pigs.

### Opportunities Identified Within the Research

1. Alfalfa Seeds / Meals - US imports almost \$10Million worth from other countries
2. Canola Seeds – Japan, Mexico, United Arab Emirates,– combined equal China
3. Fescue – Trade Mission to Oregon Seed Conference
4. Alfalfa Seeds – Idaho purchased \$27M for forge for cattle and horses. A good will crew from the Northwest should go to Idaho and take them out to lunch!
5. Fresh Beef - High-end Restaurants in California
6. Organic Oats – Japan and South Korea – Product Usage?
7. Northwest Timothy Hay Producers - Invite Japanese Ranchers to Peace Country
8. Air Cargo – Premium Prices for Fresh Meat– High-end Buyers? Japan and France

## Purpose of the Report

This report is one of three available under this report series.

Northwest Alberta – Agriculture

Northwest Alberta – Oil & Gas

Northwest Alberta – Forestry

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This research project is about data collection.

Data collection relevant to the to the agricultural, forestry, and energy commodities of Northwest Alberta that are sold to the international markets.

What are the agricultural, forestry, and energy commodities of Northwest Alberta, how much is produced in Northwest Alberta, where are the commodities being exported, and the mode of transportation used for export.

Answering these questions is the purpose of this report.

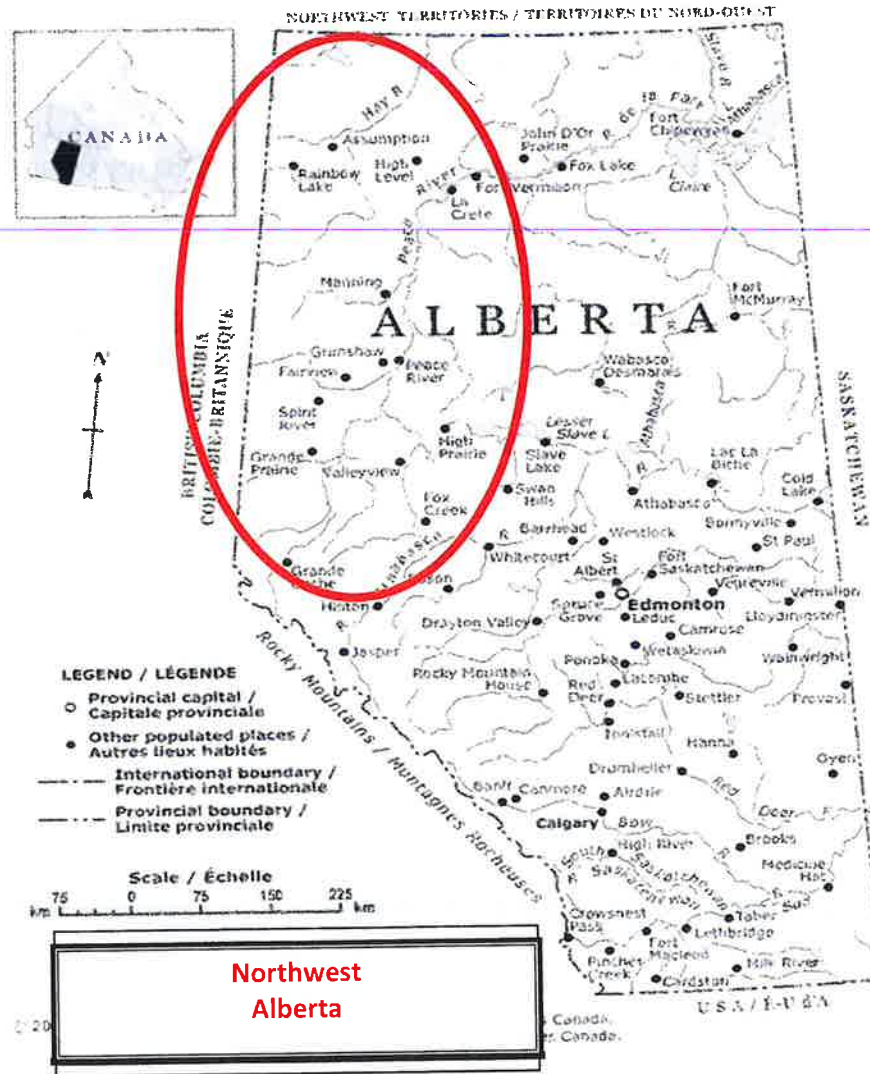
The tables and charts presented within this report not only set baselines for comparisons and analysis they also represent real economic activity outcomes. How much is produced, how much is sold, and can we identify market development opportunities as we review the data?

---



Funding for this research project was received from the Government of Alberta under the Community and Regional Economic Support (CARES) program; as such this report is available at no charge to the public.

This research project covers the Northwest area of Alberta, circled on the map below. This area is serviced the Peace Region Economic Development Alliance (PREDA) and the Regional Economic Development Initiative (REDI). Collectively these two economic alliances service 13 rural municipalities that represent 4918 farms owned by farmers caretaking for 6.4 million acres of farmland. The information collected in this report is for them.



For more information on REDI or PREDA

<https://communityeconomicdevelopment.alberta.ca/regional-economic-development-alliances-redas/>

## **SECTION 1 - SETTING THE STAGE**

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## SECTION 1 - Setting the Stage

**Global Trade** is the exchange of capital, goods, and services across international borders or territories. In most countries, such trade represents a significant share of gross domestic product (GDP). Carrying out trade at an international level is a complex process when compared to domestic trade. When trade takes place between two or more nations factors like currency, government policies, economy, judicial system, laws, and markets influence trade.

To smoothen the process of trade between countries of different economic standing, international economic organisations were formed, such as the World Trade Organization. These organisations work towards the facilitation and growth of international trade. Statistical services of intergovernmental and supranational organisations and national statistical agencies publish official statistics on international trade.

To facilitate the exchange of information the *Harmonized Commodity Description and Coding System* (HS) was developed; an internationally standardized system of names and numbers to classify traded products. It came into effect in 1988 and has since been developed and maintained by the World Customs Organization (WCO). The HS coding system has multiple levels of description for international comparisons. The lowest level of detail is Level 2; the highest level of detail is Level 6. For example, forestry products (Level 2) vs Oriented Strand Board – Softwood (Level 6).

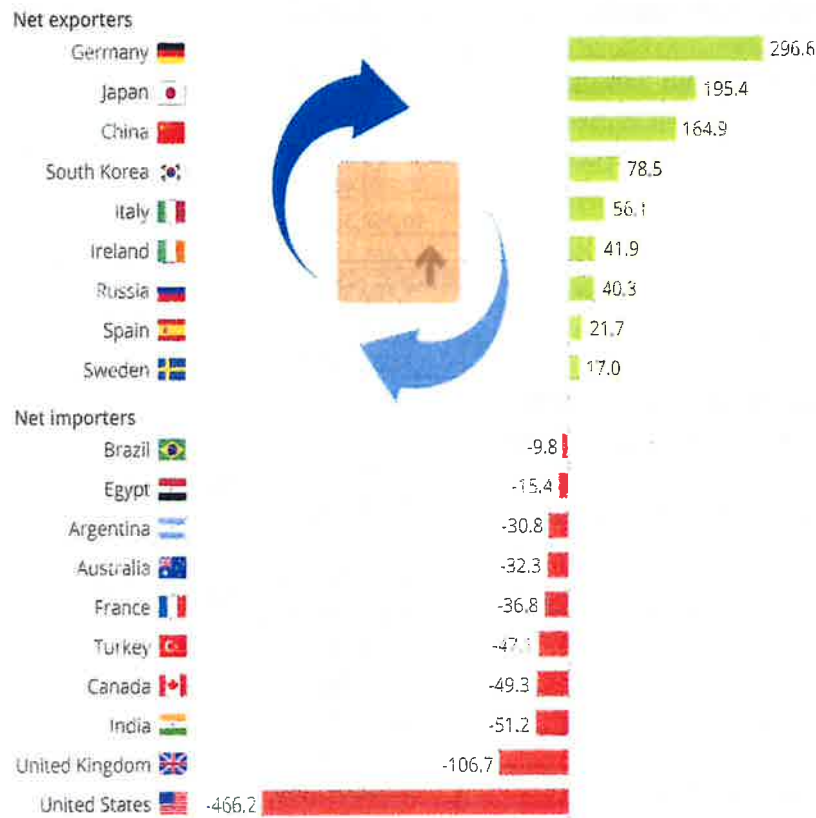
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NOTE: Sources of information are identified throughout the report. All data is referenced to 2017 to facilitate comparisons at the local, national, and global levels. It typically takes a year or more for hierarchal levels of data to be cross-comparable. For example, grain production is ready at the latest in November of a crop year. The export data is not completed and summarized for that same year until July of the following year. The production / export is then loaded into a national database, which is then shared with a global database. Overall it takes almost two years before all levels (provincial, national & global) are comparable in reference to the original production amounts. The original datasets accessed for this report are referenced through-out the report specially to assist local Economic Development Officers in updating the included charts quickly if the information is pertinent to a project they are working on.

The graphic shows a summary of the 2017 export -import international trade balances. As shown Germany, Japan and China export much more than they import (in monetary terms).

**Which Countries Are Net Exporters & Importers?**

Selected countries by positive/negative current account balance\* (in billion U.S. dollars)



Note that Canada is a net-importer; we buy more than we sell on the global trade market.

Note also the United States, is the biggest net-importer in the world. The United States is currently reviewing all trade deals and pushing for more manufacturing and production within its own country to address trade imbalances.

\* net trade in goods and services (exports minus imports) plus net earnings and net transfer payments to and from the rest of the world  
 Source: CIA World Factbook



Politics of Trade Balances

China, which exports electronics and metals but also cheap consumer goods, is embroiled in a trade war over its trade imbalance which is especially pronounced in its relationship with the United States, the biggest net importer in the world. Germany, a big exporter of machinery and cars, is also earning much more through exports than it spends on imports, much to the disdain of the European Union, which put the country on notice about its trade surplus and demanded investments, wage hikes and lower taxes. This is supposed to bolster demand at home and give trade partners with a weaker performance the chance to export to Germany and improve their own economy, according to the EU.

The table below shows Canada paid \$CA 561.4 Billion for imports in 2017. There were 106 countries recorded on Canada import transactions in 2017. Yet, the top seven countries accounted for 79.73% of all Canada's imports in the year 2017.

Canada 2017 Imports – Top 25 Products		
HS 6	Product Description	\$CA
870323	Motor Vehicles - Spark Ignition - Cylinder Capacity 1501-3000 Cc	17,840,209,000
270900	Crude Petroleum Oils and Oils Obtained from Bituminous Minerals	16,591,141,000
870324	Motor Vehicles - Spark Ignition - Cylinder Capacity More than 3000 Cc	14,186,123,000
870431	Trucks - Spark Ignition - Load Not Exceeding 5 Tonnes	13,979,491,000
271012	Light Oils and Preparations	10,759,364,000
300490	Medicaments Nes - in Dosage	7,405,357,000
851712	Telephones For Cellular Networks or For Other Wireless Networks	7,193,986,000
870829	Parts and Accessories of Motor Vehicle Bodies Nes	7,069,935,000
710812	Gold in Unwrought Form (Non-Monetary)	7,055,592,000
840734	Reciprocating Piston Engines For Road or Off-Highway Motor Vehicles	5,888,927,000
271019	Petroleum Oils and Oils from Bituminous Minerals, O/T Crude, O/T Light,	5,165,555,000
847130	Portable Automatic Data Processing Machines, With CPU, Keyboard	4,965,509,000
851762	Machines F R/C/T or Reg of Voice, Images or Data, Switching	4,895,060,000
870899	Motor Vehicle Parts, Nes	4,841,547,000
880330	Parts of Airplanes or Helicopters Nes	3,959,881,000
870840	Gear Boxes (Transmissions), For Motor Vehicles and Parts Thereof	3,651,258,000
841191	Parts of Turbojets or Turbo-Propellers	3,420,644,000
271121	Natural Gas in Gaseous State	3,415,226,000
880240	Aircraft Nes of An Unladen Weight (More than 15,000 Kg)	3,223,363,000
870120	Road Tractors For Semi-Trailers (Truck Tractors)	2,769,254,000
848180	Taps, Cocks, Valves and Other Similar Appliances, Nes	2,685,911,000
847150	Process Units O/T 8471.41/.49, W/N Cntg in Same Hsng:	2,623,216,000
940190	Parts For Seats	2,339,756,000
870830	Brakes and Servo-Brakes, For Motor Vehicles; Parts Thereof	2,277,147,000
848340	Gears and Gearing; Ball or Roller Screws; Gear Boxes, Speed Changers	2,260,298,000
Sub-total		160,463,749,000
Other Products		400,947,510,000
<b>Total Imported Products</b>		<b>\$561,411,259,000</b>

Note the significant amount of money Canada paid for imports of Crude Oil. The details of these imports are presented in the Oil & Gas component of this report series.

Source: Trade Data – Industry Canada

Canada 2017 Imports – Top 7 Countries	
United States	51.35 %
China	12.63%
Mexico	6.32%
Germany	3.19%
Japan	3.12%
United Kingdom	1.59%
Korea, South	1.53%
<b>Total</b>	<b>79.73%</b>

**Exports:** The focus of this research project is exports.

The graph below shows the monetary value of Canadian exports from 2013 to 2017,



Source: Trade Data – Industry Canada

In 2017 Canada generated \$546 Billion exporting its goods and services. A fraction of the total export revenues generated among the 238 countries exchanging products from the almost 5000 HS codes used to describe these products.



Source: Trade Data – Industry Canada, and World Trade organization

In 2017 Canada exported 4378 types of products (international Harmonized Coding System) to 222 countries. Though it sounds like Canada has a diversified trade partner portfolio, this is not the case.

**The United States accounted for 76% of Canada's \$CA 546 Billion export revenues in 2017.**

\$CA Millions	Canada 2017 Export Revenues – Top 25 Products	% US
<b>\$546,456</b>	<b>Total - All Products – HS Code – Level 2</b>	<b>75.9%</b>
\$109,773	27 - Mineral Fuels, Mineral Oils, Bituminous Substances and Mineral Waxes	91.0%
\$80,918	87 - Motor Vehicles, Trailers, Bicycles, Motorcycles and Other Similar Vehicles	93.1%
\$41,978	84 - Nuclear Reactors, Boilers, Machinery and Mechanical Appliances	75.8%
\$24,494	71 - Pearls, Precious Stones or Metals, Coins and Jewelry	28.0%
<del>\$18,277</del>	<del>44 - Wood and Articles of Wood (Incl. Wood Charcoal)</del>	<del>76.7%</del>
\$16,758	85 - Electrical or Electronic Machinery and Equipment	74.8%
\$16,319	39 - Plastics and Articles Thereof	90.5%
\$12,891	88 - Aircrafts and Spacecrafts	49.3%
\$12,736	76 - Aluminum and Articles Thereof	87.1%
\$10,199	12 - Oil Seeds, Oleaginous Fruits, Industrial or Medicinal Plants, Straw and Fodder	8.9%
\$9,347	48 - Paper, Paperboard and Articles Made From These Materials	84.3%
\$9,085	26 - Ores, Slag and Ash	0.0%
\$8,668	90 - Optical, Medical, Photographic, Scientific and Technical Instrumentation	63.4%
\$8,624	72 - Iron and Steel	83.1%
\$8,281	47 - Pulp of Wood and The Like; Waste and Scrap of Paper or Paperboard	30.2%
\$8,158	30 - Pharmaceutical Products	66.1%
\$8,131	10 – Cereals (wheat, rye, oats, etc...)	19.8%
\$7,442	94 - Furniture, Lamps and illuminated Signs, Prefabricated Buildings	94.7%
\$6,505	02 - Meat and Edible Meat Offal	49.0%
\$6,418	73 - Articles of Iron or Steel	88.7%
\$6,226	03 - Fish, Crustaceans, Mollusks and Other Aquatic Invertebrates	59.9%
\$5,908	31 - Fertilizers	60.7%
\$5,831	07 - Edible Vegetables and Certain Roots and Tubers	45.0%
\$4,606	29 - Organic Chemicals (Including Vitamins, Alkaloids and Antibiotics)	72.4%
\$4,434	28 - Inorganic Chemicals and Compounds of Precious Metals and Elements	78.7%

Source: Industry Canada – Trade Data

Note: Canada's economic integration with the United States has increased significantly since WW2. The Automotive Products Trade Agreement of 1965 opened Canada's borders to trade in the automobile manufacturing industry. In the 1970s, the federal government enacted the National Energy Program (NEP) and the Foreign Investment Review Agency (FIRA). In the 1980s, NEP was abolished and FIRA was renamed to Investment Canada. The Canada-United States Free Trade Agreement (FTA) of 1988 eliminated tariffs between the two countries, while the North American Free Trade Agreement (NAFTA) expanded the free-trade zone to include Mexico in 1994. In 2018 NAFTA was renegotiated and is now called the United States-Mexico-Canada Agreement (USMCA).



The \$546 Billion of export revenues generated by Canada’s sale of its products on the global market reflects the summary of all the export activity coming out of each province and territory.

<b>Canada 2017 Export Revenues – By Province and Territory (CAS- Billion)</b>		
Ontario	241.7	44.1%
<b>Alberta</b>	<b>101</b>	<b>18.4%</b>
Quebec	85	15.6%
British Columbia	45	8.2%
Saskatchewan	29	5.3%
Manitoba	14	2.6%
New Brunswick	13	2.3%
Newfoundland and Labrador	10	1.9%
Nova Scotia	6	1.0%
Northwest Territories	2	0.3%
Prince Edward Island	1	0.3%
Nunavut	0.3	0.1%
Yukon	0.1	<0.1%
<b>All Jurisdictions</b>	<b>546.3</b>	<b>100%</b>

Source: CANADA'S STATE OF TRADE- Global Affairs Canada (2018)

*“The top three exporting provinces – Ontario, Alberta and Quebec – accounted for 78 percent of Canada’s export revenues in 2017. Ontario was the only province whose exports declined; Automotive exports were the main culprit (down 5.8 %). Alberta’s exports “valued at 101 billion” (up 26.4 percent), restoring it to the second rank among Canada’s exporter jurisdictions. Exports of energy products were driving Alberta’s growth, while in Quebec mechanical machinery and aluminum were key. “British Columbia, coal and gas exports caused most of the increase. Saskatchewan’s exports grew 8.5 percent (up \$2.3 billion) while Manitoba’s exports inched up 2.8 percent (up \$0.4 billion). Further down the rankings, New Brunswick showed remarkable growth of 20.4 percent (up \$2.2 billion), matched and exceeded by Newfoundland and Labrador with 20.7 percent (up \$1.7 billion). Energy exports were behind both increases, though ores helped as well in the case of Newfoundland and Labrador. Nova Scotia’s exports grew modestly by 2.4 percent (up \$0.1 billion), while Northwest Territories expanded exports by 30.2 percent due to higher diamond exports. Yukon’s main export, copper ores, halved their (and the territory’s) exports, while Nunavut reported major exports ( gold) for the first time.”*



## Alberta Exports



Source: Industry Canada – Trade Data

In 2017 Alberta generated \$101 Billion in revenues from international exports with 193 countries. The table below presents the top ten export countries for Alberta, the export revenues generated from that country in 2017, and the number one product Alberta sold to that country.

Alberta 2017 – Export Revenues (\$101 Billion) – By Country (\$CA)					
Country	Export \$	Top Product Sold	Country	Export \$	Top Product Sold
USA	88 Billion	Oil and Gas Extraction	UAE	279 Million	Oilseed (Canola)
China	3.9 Billion	Oilseed (Canola)	Indonesia	269 Million	Wheat
Japan	1.7 Billion	Oilseed (Canola)	France	250 Million	Oilseed (Canola)
Mexico	1.3 Billion	Petroleum Refineries	India	230 Million	Dry Pea and Bean
Korea, South	419 Million	Animal Slaughtering	Australia	227 Million	Inorganic Chemical

Source: Industry Canada – Trade Data

With 193 trading partners one would think Alberta has quite diverse trading relations on the global markets. However, like Canada, this is not the case.

**The United States accounted for 88.5% of Alberta's  
\$CA 101 Billion export revenues in 2017.**

The following table shows Alberta's top 25 export products (at HS Level 6 – most detailed) and the percentage of these sales that were sold to the United States. Of interest to this research report are the products that are mostly sold to the United States and whether these products are produced in the Northwest.

<b>Alberta 2017 Export Revenues – Top 25 Products HS Code – Level 6 (\$CA)</b>	<b>Total AB 2017 Export Revenues</b>	<b>US Percent of AB 2017 Export Revenues</b>
<b>Total – 2017 Export Revenues</b>	<b>\$101,484,429,047</b>	<b>88.5%</b>
270900 - Crude Petroleum Oils and Oils Obtained from Bituminous Minerals	\$59,573,782,874	99.9%
271121 - Natural Gas in Gaseous State	\$7,373,907,554	100.00%
120510 - Rape or Colza Seeds - Low Erucic Acid (Whether or Not Broken)	\$2,031,177,111	4.61%
100199 - Meslin and Wheat Nes: Other	\$1,806,826,046	12.21%
271112 - Liquefied Petroleum or Hydrocarbon Gases - Propane	\$1,562,642,935	88.24%
290531 - Ethylene Glycol (Ethanediol)	\$1,431,995,468	40.43%
390140 - Ethylene-alpha-olefin copolymers, gravity of less than 094	\$1,410,963,957	92.56%
390190 - Polymers of Ethylene Nes, in Primary Forms	\$1,152,068,054	91.54%
020130 - Bovine, Cuts Boneless - Fresh or Chilled	\$1,094,941,844	90.87%
271019 - Petroleum Oils and Oils from Bituminous Minerals, O/T Crude / Light,	\$1,064,033,541	82.84%
440710 - Lumber (Thickness >6Mm) - Coniferous Wood	\$1,008,226,204	88.97%
390120 - Polyethylene - Specific Gravity of 0.94 or More	\$992,920,305	85.21%
151411 - Rape (Canola) or Colza Oil - Low Erucic Acid - Crude	\$852,494,768	29.49%
470321 - Chemical Wood pulp - Soda or Sulphate - Coniferous, Bleached	\$711,526,156	62.36%
010229 - Cattle, Other	\$612,082,753	99.92%
441012 - Oriented Strand Board (OsB), of Wood	\$555,942,990	99.82%
281410 - Ammonia - Anhydrous	\$475,715,960	100.00%
271012 - Light Oils and Preparations (petroleum)	\$461,555,367	100.00%
390110 - Polyethylene - Specific Gravity of Less than 0.94	\$428,460,769	84.63%
290250 - Styrene	\$417,405,852	100.00%
<del>470329 - Chemical Woodpulp - Soda or Sulphate - Non-Coniferous, Bleached</del>	<del>\$413,781,280</del>	<del>57.01%</del>
470500 - Semi-Chemical Wood Pulp	\$407,309,934	4.05%
230641 - Oil-Cake - of Low Erucic Acid Rape (Canola) or Colza Seeds	\$400,038,294	70.03%
750210 - Nickel - Unwrought, Not Alloyed	\$388,751,905	0.00%
100119 - Durum Wheat: Other	\$321,829,494	16.90%
Other Products	\$14,534,047,632	

Source: Industry Canada – Trade Data

*“We produced 3.9 million barrels per day of oil and  
15.2 billion cubic feet per day of  
natural gas, 99 % of our  
oil exports and  
100 % of our natural gas exports goes to the U.S.”*

Source: Canadian Association of Petroleum Producers

## Alberta Trade with the US

Reflecting 88.5% of all of Alberta's export revenues in 2017; the United States is a critical export market for the Province. The table below shows the distribution by state of the \$88.5 Billion generated from exports to the US. The top states largely reflect the transfer nodes of the transmission lines for the oil & gas industry. Alberta's trade with the United States and how this volume and monetary value is distributed across the States will be detailed in the Sector sections of this report.

2017 US State	Percent of AB 2017 Export Revenues	\$CA	2017 US State	Percent of AB 2017 Export Revenues	\$CA
Illinois	29.36	\$ 29,794,403,931	South Carolina	0.28	\$ 279,997,446
Texas	10.49	\$ 10,649,919,966	Florida	0.27	\$ 277,850,119
Washington	7.48	\$ 7,589,286,128	Kansas	0.27	\$ 277,701,301
Minnesota	5.67	\$ 5,753,997,509	Georgia	0.27	\$ 271,413,851
Michigan	5.63	\$ 5,717,371,300	Kentucky	0.26	\$ 262,244,257
Colorado	3.19	\$ 3,241,844,279	North Carolina	0.24	\$ 242,105,436
Montana	2.84	\$ 2,881,037,795	Alaska	0.21	\$ 214,447,377
Oklahoma	2.54	\$ 2,573,243,443	Nevada	0.2	\$ 198,607,863
California	2.49	\$ 2,528,887,420	Arizona	0.16	\$ 163,337,777
New York	2.32	\$ 2,355,278,347	Tennessee	0.16	\$ 158,619,574
Ohio	1.91	\$ 1,943,293,176	South Dakota	0.13	\$ 128,963,907
Pennsylvania	1.42	\$ 1,444,909,492	Vermont	0.12	\$ 126,411,194
Louisiana	1.07	\$ 1,089,257,445	Nebraska	0.12	\$ 119,116,514
Missouri	0.93	\$ 946,097,726	Mississippi	0.11	\$ 112,458,925
Wisconsin	0.9	\$ 915,784,336	Virginia	0.1	\$ 106,521,946
North Dakota	0.63	\$ 641,361,431	Connecticut	0.06	\$ 56,432,961
Wyoming	0.6	\$ 605,108,672	Arkansas	0.05	\$ 55,561,234
Delaware	0.56	\$ 567,715,539	Maryland	0.05	\$ 51,450,766
Idaho	0.53	\$ 534,873,986	West Virginia	0.04	\$ 43,929,282
Iowa	0.51	\$ 520,088,868	Maine	0.04	\$ 43,830,993
Oregon	0.51	\$ 518,480,421	Hawaii	0.03	\$ 34,248,734
Alabama	0.48	\$ 489,627,128	New Mexico	0.02	\$ 25,156,100
Massachusetts	0.46	\$ 465,229,662	Rhode Island	0.02	\$ 15,267,653
Utah	0.4	\$ 402,124,132	New Hampshire	0.02	\$ 15,227,626
New Jersey	0.33	\$ 338,573,166	Dis. of Columbia	<.01	\$ 1,264,208
Indiana	0.29	\$ 299,145,270			

Source: Industry Canada – Trade Data

*“The first rule of thumb for trade is proximity.  
The closer you are the more likely it is there will be trade;  
especially if you both have something the other wants.”*

Source: “Gravity Model of Trade”- Foreign Affairs Canada

## Section 1 - Comments

Canada has vast natural resources. Who we sell these natural resources to, how much money we receive, and under what conditions is a matrix of variables like trade agreements, supply & demand, and cost of delivery? In our global economy the successful international exchange of goods and services (exports and imports) is also measured against benchmarks like trade balances; tariffs, and geo-political relations.

Global, federal, and provincial datasets are collected by numerous agencies. Canada contributes annual summaries of export revenues to international agencies. Alberta contributes to the annual summaries of export revenues reported by Industry Canada. Determining how much of Alberta's export revenues are generated in the Northwest? This is where it gets tricky. There is no master dataset available that directly links Northwest Alberta sales of agriculture, forestry, or energy products to federal or provincial annual export revenues.

At minimum we want to “benchmark”. To do this, a wide variety of regional level economic activities are reviewed for analysis in this report. Each sector – agriculture, forestry, and energy – will have vastly different information sources. For example, in the agricultural sector, information on the number of grain-loaded rail cars leaving the region will be reviewed; in the forestry sector we will review industry level Forestry Management Agreements to determine the volume of wood available in Northwest Alberta; in the energy sector we will identify the collection and transmission data at the gathering stations.

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Because of the diverse and numerous information sources accessed to provide an overall synopsis of the primary commodities produced in Northwest Alberta the report is presented in three distinct sub-reports – Northwest Alberta Agriculture; Northwest Alberta Energy and Northwest Alberta Forestry. For each sub-report the fundamental questions remained at the forefront: 1) what commodities are produced; 2) how much is being produced; 3) where the commodity is sold outside of Canada; and the mode of transport to deliver the commodity.

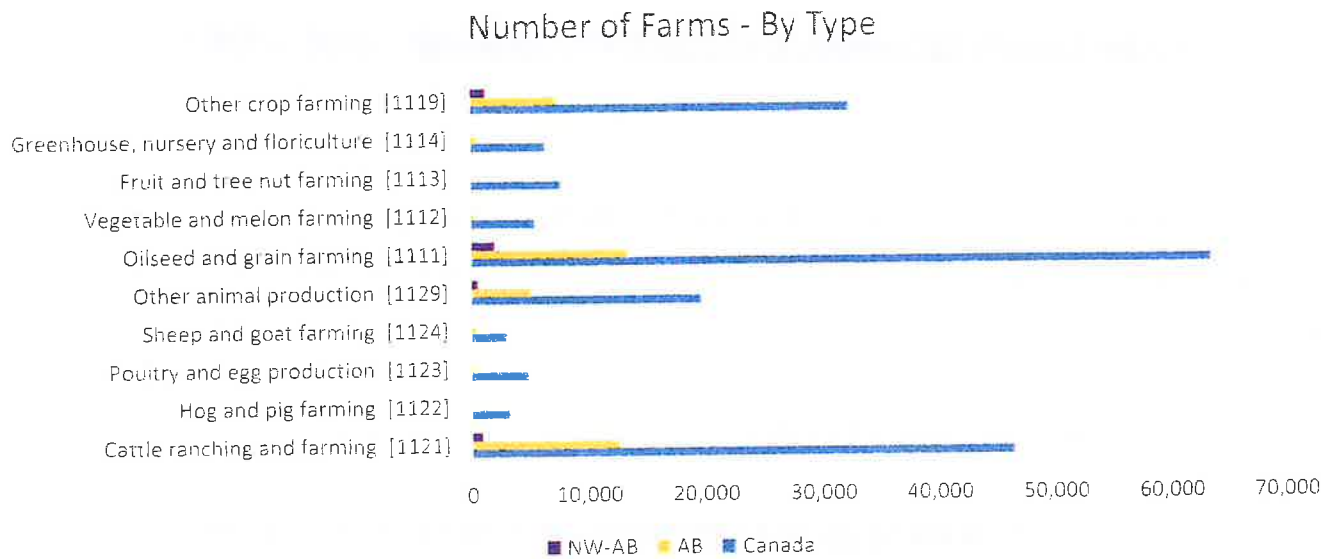
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**SECTION 2 - AGRICULTURE**

Land Use Type

Northwest Alberta is an agriculturally rich area. Though the region represents a small part of all of Canada’s farmland, the agricultural products grown and bred in this region are renowned for their superior quality. There were 193,650 farms counted in Canada’s 2016 Census of Agriculture.

**Less than 3% of Canada’s farms are in Northwest Alberta.**



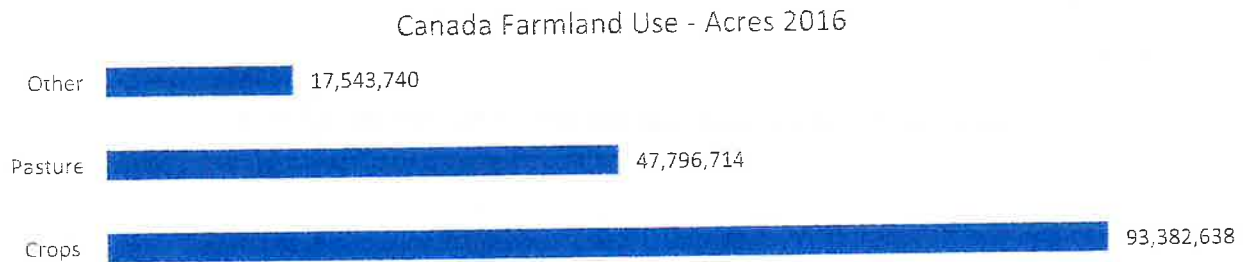
Source: Statistics Canada - 2016 Census of Agriculture

	Canada	AB	Northwest AB
<b>Total number of farms</b>	<b>193,492</b>	<b>40,638</b>	<b>4,918</b>
Cattle ranching and farming [1121]	46,538	12,693	890
Hog and pig farming [1122]	3,305	166	8
Poultry and egg production [1123]	4,903	373	20
Sheep and goat farming [1124]	3,056	399	30
Other animal production [1129]	19,792	5,101	556
Oilseed and grain farming [1111]	63,628	13,451	2,026
Vegetable and melon farming [1112]	5,514	299	22
Fruit and tree nut farming [1113]	7,845	137	19
Greenhouse, nursery and floriculture [1114]	6,449	605	32
Other crop farming [1119]	32,462	7,414	1,315
<b>Total number of farms</b>	<b>193,492</b>	<b>40,638</b>	<b>4,918</b>



Of the more than 158 million acres dedicated to farmland in Canada;

**59% is dedicated to crops.**



Farmland in Northwest Alberta is listed below. The County of Grande Prairie has the largest number of acres of farmland; while the MD of Peace has the smallest number of acres.

Source: Statistics Canada – 2016 Census of Agriculture

**Northwest Alberta 2016 Agricultural Land Inventory – By Type (Acres)**

	Crop Land	Fallow	Pasture Land	All Other *	Total
Canada	93,382,638	2,209,071	47,796,714	15,334,669	158,723,092
Alberta	25,261,781	644,021	21,283,021	3,061,360	50,250,183
<b>NW-AB</b>	<b>3,934,383</b>	<b>83,262</b>	<b>1,683,854</b>	<b>752,817</b>	<b>6,454,316</b>
N. Sunrise	171,297	973	64,529	52,249	289,048
Big Lakes	157,412	4,018	152,173	56,876	370,479
Clear Hills	271,381	6,399	185,916	61,262	524,958
N. Lights	347,053	7,624	130,907	71,194	556,778
Mackenzie	371,972	21,751	87,654	114,271	595,648
Greenview	293,024	8,495	277,991	74,196	653,706
County GP	591,167	15,052	330,811	121,060	1,058,090
Smoky River	545,973	3,393	46,738	37,998	634,102
Birch Hills	323,869	3,457	106,785	29,149	463,260
Spirit River	134,824	2,344	15,482	12,430	165,080
Saddle Hills	344,404	6,326	121,424	63,125	535,279
Fairview	233,276	1,229	40,114	23,405	298,024
Peace	107,084	1,117	68,125	14,471	190,797

Source: Statistics Canada - 2016 Census of Agriculture – Custom Request by Municipality

**Cropland – Exports** The table below shows the acres of cropland that are dedicated to the principle field crops grown in the rural municipalities in Northwest Alberta. The largest number of acres is dedicated to Canola, then wheat, alfalfa, and dry field peas. Collectively the 11 crops below represent 99.5% of the crop-land usage in the Northwest ( 3,912,852 acres of the 3,934,383 acres in the crop-land inventory shown in the previous table for the Northwest).

Source: Statistics Canada – 2016 Census of Agriculture – Custom Request by Municipality

<b>Northwest Alberta 2016 Agricultural Land Inventory – Crops (Acres)</b>											
	Canola	Wheat	Alfalfa and Mixes	Dry Field Peas	Barley	Tame Hay Fodder	Oats	Forage Seeds	Mixed Grains	Rye	Corn
Canada	20,606,778	23,436,513	9,276,755	4,291,872	6,696,068	4,851,167	3,159,687	408,023	509,698	411,189	4,563,248
Alberta	6,165,746	7,008,542	3,056,701	1,909,491	3,413,856	1,161,521	822,185	164,070	242,206	67,215	241,151
<b>NW-AB</b>	<b>1,293,166</b>	<b>948,882</b>	<b>459,467</b>	<b>432,825</b>	<b>263,288</b>	<b>204,012</b>	<b>192,481</b>	<b>91,277</b>	<b>15,670</b>	<b>6,094</b>	<b>5,690</b>
N. Sunrise	71,533	55,349	9,867	15,431	5,648	7,373	2,521	3,102	450	0	0
Big Lakes	38,843	29,340	27,583	6,925	8,617	32,814	6,603	5,276	x	821	265
Clear Hills	43,061	46,722	46,918	63,360	20,883	19,441	21,311	5,315	2,940	340	x
N. Lights	109,552	92,300	45,851	x	31,541	17,885	14,006	4,468	x	x	195
Mackenzie	118,761	68,991	33,505	50,299	24,231	9,273	52,983	x	2,649	x	1,089
Greenview	79,474	57,714	49,491	13,496	17,914	32,822	20,410	17,881	653	x	820
County GP	156,661	109,731	123,235	42,233	73,873	39,224	23,207	17,363	1,900	975	214
Smoky River	259,729	194,602	7,689	48,672	16,940	4,336	3,734	6,784	0	x	580
Birch Hills	149,018	82,982	17,053	41,159	25,842	3,081	3,557	700	x	0	x
Spirit River	45,252	32,390	5,812	30,525	7,492	3,765	5,046	901	x	x	0
Saddle Hills	78,833	81,914	55,547	48,325	17,269	19,165	23,632	15,622	1,340	250	480
Fairview	99,265	66,825	17,149	21,561	7,440	5,027	6,341	6,434	854	x	x
Peace	35,335	22,505	8,061	22,253	3,559	5,596	4,324	2,780	615	x	169

NOTE: Northwest Alberta is located within an agricultural region referred to as the Peace Country. This region includes the northern eastern section of British Columbia. This report does not include the BC-Peace region.

### Principle Field Crops – Production

Field Crops: Cereal grains and oilseeds are a huge component of the agricultural industry in Canada. These crops are monitored by the Canadian Grain Commission; a federal government agency responsible for regulating grain handling in Canada and certifies the quality, safety and quantity of export shipments of Canadian grain. The table below shows the principle food crops and the volume produced in Canada, Alberta, and Northwest Alberta.

Canada and Alberta – Principle Grains and Oils Seeds - Production (Metric Tonnes)						
Type of crop	CANADA			ALBERTA		
	2015	2016	2017	2015	2016	2017
Barley	8,256,600	8,839,400	7,891,300	4,289,200	4,398,000	3,906,000
Canola	18,376,500	19,599,200	21,328,100	5,851,300	6,157,500	6,826,600
Oats	3,425,000	3,231,200	3,733,000	393,300	624,600	609,200
Peas, dry	3,200,700	4,835,900	4,112,200	1,314,500	2,271,200	1,991,500
Wheat,	27,647,400	32,139,900	30,377,200	8,290,000	10,106,700	9,980,100

Source: Statistics Canada - Estimated areas, yield, production Table: 32-10-0359-01

The table shows the number of acres that were harvested in 2017 and the total production for these field crops in Northwest Alberta. Combined these five crops represent 75% of the cropland usage in the Northwest.

Northwest Alberta – 2017 Major Food Grade - Field Crops		
	Harvested	Production
	Acres	Metric Tonnes
Barley	179,500	265,900
Canola	1,378,700	1,296,900
Oats	150,800	197,700
Peas, dry	348,900	399,400
Wheat, all	868,900	1,162,200
<b>Total</b>	<b>2,926,800</b>	<b>3,332,500</b>

Source: Statistics Canada - Estimated areas, yield, production Table: 32-10-0359-01

One of the first benchmarks to assess how much of the principle field crops production is exported is to review the volumes that are delivered to the **primary grain elevators** in the region. These facilities, a component of the Grain Handling System across Canada, are the iconic community located grain towers.

**Primary** an elevator the principal use of which is the receiving of grain directly from producers for either or both storage and forwarding. There are 357 primary elevators in Canada; 83 are in Alberta.

**Terminal** an elevator whose principal uses are the receiving of grain from another elevator and the cleaning, storing and treating of the grain before it is moved forward to export. There are 32 terminal elevators in Canada; there are none in Alberta.

**Producer Loading:** Under the Canada Grain Act, grain producers are entitled to order producer railway cars through the Canadian Grain Commission to ship any grain designated as such under the Canada Grain Act. Producer railway cars are used to ship grain directly to a destination and provide producers a delivery alternative to the licensed grain handling system.

**Process** an elevator the principal use of which is receiving and storing of grain for direct manufacture or processing into other products. There are 44 process elevators in Canada; 10 are in Alberta. There are no process elevators in Northwest Alberta, yet these facilities play a critical intermediate step in the value added to raw grains. Whether it be crushing canola into oil, malting barley for the beer industry, or turning raw oats into oatmeal; the value added is significant. Being aware of where these facilities are located and how much of the Northwest's grains are shipped to these facilities is an important element of this report.

Process Elevators in Canada – Feb 2019

Province	Community	Company	Province	Community	Company
AB	Alix	Rahr Malting Canada Ltd.	SK	Belle Plaine	Terra Grain Fuels Inc.
AB	Calgary	ADM Agri-Industries Company	SK	Bellevue	Belle Pulses Ltd.
AB	Calgary	Canada Malting Co. Limited	SK	Biggar	Cargill Limited
AB	Camrose	Cargill Limited (1)	SK	Clavet	Cargill Limited (1)
AB	Duagh	Canadian Oats Milling Ltd.	SK	Dalmeny	Richardson Milling Limited
AB	Fort Sask	Bunge Canada	SK	Duck Lake	Belle Pulses Ltd.
AB	Lethbridge	Richardson Oilseed Limited	SK	Indian Head	PATERSON GRAIN/ GlobalFoods
AB	Lloydminster	ADM Agri-Industries Company	SK	Lanigan	Pound-Maker Agventures Ltd.
AB	Manola	Richardson Milling Limited	SK	Lloydminster	Husky Oil Limited
AB	Red Deer	Permolx Ltd.	SK	Nipawin	Bunge Canada
BC	Armstrong	Gambrinus Malting Corporation	SK	Regina	CanMar Foods Ltd.
MB	Altona	Bunge Canada	SK	Regina	Oleet Processing Ltd. (1)
MB	Elie	Prairie Flour Mills Ltd.	SK	Regina	Oleet Processing Ltd. (6)
MB	Harrowby	Bunge Canada	SK	Regina East	Avena Foods Limited
MB	Macgregor	Prairie Flax Products Inc.	SK	Richardson	PATERSON GRAIN,/ GlobalFoods
MB	Minnedosa	Husky Oil Limited	SK	Rowatt	Best Cooking Pulses / Avena Foods
MB	Portage La P	Richardson Milling Limited	SK	Saskatoon	Ardent Mills ULC
MB	Russell	2712270 DBA Pizzey Ingredients	SK	Saskatoon	Parrish & Heimbecker, Limited
MB	Ste Agathe	Viterra Inc.	SK	Yorkton	Grain Millers Canada Corp.
MB	Ste Anne	Natural Proteins Inc.	SK	Yorkton	Louis Dreyfus Company
MB	Winnipeg	ADM Agri-Industries Company	SK	Yorkton	Richardson Oilseed Holdings
MB	Winnipeg	Malteurop Canada Ltd.	ON	Thunder Bay	Canada Malting Co. Limited

The table below shows the volume of principle grains (relative to Alberta) that were delivered to the process elevators across Canada.

Deliveries to Process Elevators 2017-2018 (Thousand Metric Tonnes)					
	BC	AB	SK	MB	Total
Barley	12.7	385.6	84.8	151.4	<b>634.6</b>
Wheat	-	108.3	784.6	41	<b>933.8</b>
Oat	-	1.7	245.1	33.7	<b>280.4</b>
Rye	-	12.1	-	-	<b>12.1</b>
Canola	-	2,199.80	3,906.60	975.7	<b>7,082.10</b>

Process elevators appear to very under-utilized, not just in Alberta but across Canada. Considering, for example that Canada produced 21 Million metric tonnes of Wheat yet less than 1M goes through these facilities for upgrading to higher-level products.

The table below shows the location of the primary elevators in the Northwest and the percentage of the 2017 principle field crops production that was shipped out of the Northwest using these facilities.

Northwest Alberta – Deliveries to Primary Elevators 2017-18 Metric Tonnes					
NW Alberta Production	1,162,200	197,700	265,900	1,296,900	399,400
Delivery Point / Crop	Wheat	Oat	Barley	Canola	Peas
NAMPA	131.9	-	3.1	166.8	14.8
RYCROFT	234.1	-	23.8	402.0	133.9
HIGH LEVEL	56.7	-	3.7	56.2	21.5
SMOKY RIVER	139.0	0.1	13.6	160.2	40.3
SEXSMITH	166.5	-	64.0	134.8	63.3
MCLENNAN	151.8	-	-	132.0	20.0
FALHER	34.7	-	-	-	23.7
GRIMSHAW	108.9	-	50.4	173.1	73.5
<b>Total Delivered</b>	<b>1,023,700</b>	<b>100</b>	<b>158,700</b>	<b>1,225,000</b>	<b>391,100</b>
<b>% Delivered</b>	<b>88%</b>	<b>&lt;1%</b>	<b>60%</b>	<b>94%</b>	<b>98%</b>

Source: Canadian Grain Commission

Deliveries to primary grain elevators shows that most of the production of the Canola, Wheat, and Dry Field Peas produced in the Northwest is accounted for under the delivery volumes to the primary elevators in the region. For barley, approximately 40% of production did not go through the primary elevators. And Oats – pretty much nothing goes



through the primary elevator system. This is not uncommon for most of the Oats produced in Alberta. Oats production has two other major uses that are not captured through the elevator system. Use domestically on local farms as feed, and/or exported as “Pony Oats” to exclusive horseracing / horse owners in the United States.

Alberta export revenues from the sale of plant products, which includes all cereal grains and oil seeds, reached \$ 5.3 Billion in 2017. Overall the US accounts for only 15.3% of all export revenues in 2017 for this product category. The table below shows the export revenues for Alberta for plant products. Highlighted are the HS Coded products of importance to the Northwest. Note the US is a major importer for four of the eight products highlighted.

Alberta 2017 Export Revenues – All Plant Products and Vegetables	SCA	Percent
		Sold to US
<b>All Countries</b>	<b>\$ 5,351,691,802</b>	<b>15.3%</b>
HS 1001 - Wheat	\$ 2,132,003,792	12.9%
HS 120510 - Rape or Colza Seeds - Low Erucic Acid (Whether or Not Broken)	\$ 2,031,177,111	4.6%
HS 0713 - Leguminous Vegetables - Dried and Shelled	\$ 307,083,320	16.0%
HS 1107 - Malt	\$ 240,261,404	45.5%
HS 1003 - Barley	\$ 197,042,331	13.0%
HS 121490 - Swedes, Mangolds, Hay, Clover, Sainfoin, Forage Kale, Pellets	\$ 101,705,476	15.4%
HS 0701 - Potatoes - Fresh or Chilled	\$ 44,289,804	100.0%
HS 1104 - Cereal Grains - Hulled, Rolled, Flaked, Pearled, Sliced, Kibbled; Germ	\$ 37,557,091	71.9%
HS 1201 - Soya Beans, Whether Broken	\$ 31,654,071	0.1%
HS 120921 - Seeds of Forage Plants: Lucerne (Alfalfa) Seeds	\$ 30,895,336	94.3%
HS 120923 - Seeds of Forage Plants: Fescue Seeds	\$ 29,403,984	89.9%
HS 1004 - Oats	\$ 28,786,882	93.4%
HS 1103 - Cereal Groats, Meal and Pellets	\$ 28,317,314	78.2%
HS 1204 - Linseed	\$ 27,558,320	27.2%
HS 1207 - Other Oil Seeds and Oleaginous Fruits	\$ 17,740,467	57.4%
HS 120929 - Seeds of Forage Plants, Except Beet Seeds, For Sowing, Nes	\$ 12,171,913	67.9%
HS 1302 - Vegetable Saps and Extracts; Pectic Substances; Agar-Agar	\$ 9,451,006	79.4%
HS 1101 - Wheat or Meslin Flour	\$ 8,119,761	82.5%
HS 1109 - Wheat Gluten, Whether Dried	\$ 6,982,483	100.0%
HS 121410 - Lucerne (Alfalfa) Meal and Pellets	\$ 6,431,640	100.0%
HS 0707 - Cucumbers and Gherkins - Fresh or Chilled	\$ 4,112,288	100.0%
HS 1002 - Rye	\$ 3,491,857	94.4%
HS 120590 - Rape or Colza Seeds - Other Nes (Whether or Not Broken)	\$ 3,328,293	82.0%
HS 1211 - Plants Primarily in Pharmacy, Perfumery, Insecticides, Fungicides	\$ 2,462,164	20.4%
HS 1108 - Starches (Inulin)	\$ 2,137,939	100.0%
HS 0702 - Tomatoes - Fresh or Chilled	\$ 1,475,056	100.0%
<b>All Other Products</b>	<b>\$ 6,050,699</b>	<b>62.2%</b>



**WHEAT****VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

**Wheat** is a grass widely cultivated around the world for its seed, a cereal grain which is a worldwide staple food. There are numerous varieties of wheat on the global market and numerous global exporters of wheat. Note that Canada ranks 7<sup>th</sup> for the global production of wheat.

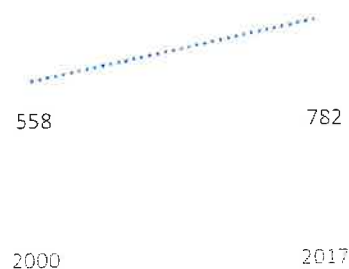
<b>Alberta 2017 Export Revenues (\$CA)</b>	
<b>Wheat – By Country</b>	
United States	\$ 275,994,065
Japan	\$ 202,996,888
Indonesia	\$ 200,206,767
Bangladesh	\$ 143,090,935
Peru	\$ 125,985,923
Colombia	\$ 100,738,028
Nigeria	\$ 97,924,909
Vietnam	\$ 94,415,427
Mexico	\$ 90,345,625
Algeria	\$ 89,281,248
China	\$ 72,853,620
Ecuador	\$ 60,284,657
Morocco	\$ 54,495,024
United Arab Emirates	\$ 50,085,481
Italy	\$ 45,603,363
United Kingdom	\$ 43,700,342
Sri Lanka	\$ 37,828,417
Ghana	\$ 36,160,871
Philippines	\$ 27,180,513
Venezuela	\$ 25,454,600
Chile	\$ 24,483,971
Korea, South	\$ 19,888,715
Malaysia	\$ 19,840,977
Cuba	\$ 17,928,051
Brazil	\$ 16,021,698
Dominican Republic	\$ 15,679,438
Kenya	\$ 14,701,499
Costa Rica	\$ 14,077,340
Thailand	\$ 12,847,307
Tanzania	\$ 11,470,975
Mozambique	\$ 10,860,898
Cameroon	\$ 10,073,356
Turkey	\$ 8,053,084
Netherlands	\$ 7,738,145
Belgium	\$ 7,179,324
Haiti	\$ 6,170,416
Oman	\$ 5,103,389
Tunisia	\$ 4,995,614
All Others	\$30,262,892
<b>Total All Countries</b>	<b>\$ 2,132,003,792</b>

**Top wheat producers**

Country	Millions of Tonnes
<b>World</b>	<b>720</b>
 <b>European Union</b>	157.3
 <b>China</b>	126.2
 <b>India</b>	95.8
 <b>Russia</b>	59.7
 <b>United States</b>	55.1
 <b>France</b>	39.0
 <b>Canada</b>	29.3
 <b>Germany</b>	27.8
 <b>Pakistan</b>	26.0
 <b>Australia</b>	25.3
 <b>Ukraine</b>	24.1

Source: UN Food & Agriculture Organization

Global demand for wheat and wheat products continues to increase. In 2000 global exports were at 558MMT; in 2017 global exports rose to 782MMT.



**WHEAT VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

**Transporting Wheat:** Wheat produced in the Northwest is transported out of the Northwest region by rail. The table below shows 88% of the volume of wheat produced in the Northwest in the year 2017 was delivered to a grain terminal within the Northwest region.

<b>Northwest Alberta – Deliveries to Primary Elevators 2017-18</b>	
<b>Wheat</b>	
<b>Production</b>	<b>1,162,200 (Metric Tonnes)</b>
<b>Delivery Point</b>	
NAMPA	131.9
RYCROFT	234.1
HIGH LEVEL	56.7
SMOKY RIVER	139.0
SEXSMITH	166.5
MCLENNAN	151.8
FALHER	34.7
GRIMSHAW	108.9
<b>Total Delivered to Elevators</b>	<b>1,023,700 Metric Tons</b>
<b>% of Production Delivered to Elevators</b>	<b>88%</b>

Once the wheat from the Northwest reaches a juncture point where wheat from other regions are mixed, the intermodal transport begins to emerge depending on the point of export from Canada. In total, in 2017 there were 731 export shipments of wheat from Alberta to 35 countries. More than 400 of these shipments went to the United States, with Japan, Indonesia, and Bangladesh being the next top three importers of Alberta wheat. The following tables show the volumes delivered to each key importer, the primary mode of transport, and the value of each shipment. Also shown is the variety of wheat purchased.

**WHEAT VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

The tables below show that Alberta had nine export shipments of Wheat to Japan, seven export shipments to Indonesia, and two export shipments to Bangladesh in the year 2017. Note, by default ocean carriers are needed to get the product to the overseas buyer.

<b>Alberta 2017 Export Revenues - Wheat to Japan</b>				
<b>Wheat - Type</b>	<b>Export Point</b>	<b>Mode of Transport</b>	<b>Volume Tonnes</b>	<b>Value \$CA</b>
Durum wheat, certified organic,	Vancouver	Rail / Water	11	15,267
Durum wheat,	Vancouver	Rail / Water	33908	13,563,710
Durum wheat,	Montréal	Rail / Water	8432	2,452,425
Red spring wheat, certified organic,	Vancouver	Rail / Water	151	138,723
Red spring wheat,	Prince Rupert	Rail / Water	77763	29,665,449
Red spring wheat,	Vancouver	Rail / Water	424107	146,000,000
Red spring wheat,	Vancouver	Rail / Water	13599	4,369,564
Western red winter wheat,	Vancouver	Rail / Water	58	17,466
Wheat, and meslin (NES)	Vancouver	Rail / Water	24148	7,241,999
<b>Total</b>			<b>582,177</b>	<b>\$203,464,603</b>

<b>Alberta 2017 Export Revenues - Wheat to Indonesia</b>				
<b>Wheat - Type</b>	<b>Export Point</b>	<b>Mode of Transport</b>	<b>Volume Tonnes</b>	<b>Value \$CA</b>
Durum wheat,	Vancouver	Rail / Water	3527	1296407
Red spring wheat, certified organic,	Vancouver	Rail / Water	109	37701
Red spring wheat,	Prince Rupert	Rail / Water	207132	65035393
Red spring wheat,	Vancouver	Rail / Water	389174	131422379
Red spring wheat,	Vancouver	Rail / Water	4310	1388413
Wheat, and meslin (NES)	Prince Rupert	Rail / Water	3364	958726
Wheat, and meslin (NES)	Vancouver	Rail / Water	205	67748
<b>Total</b>			<b>607,821</b>	<b>\$ 200,206,767</b>

<b>Alberta 2017 Export Revenues - Wheat to Bangladesh</b>				
<b>Wheat - Type</b>	<b>Export Point</b>	<b>Mode of Transport</b>	<b>Volume Tonnes</b>	<b>Value \$CA</b>
Red spring wheat,	Prince Rupert	Rail / Water	164291	53,405,038
Red spring wheat,	Vancouver	Rail / Water	283102	89,685,896
<b>Total</b>			<b>447,393</b>	<b>143,090,934</b>

**WHEAT VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

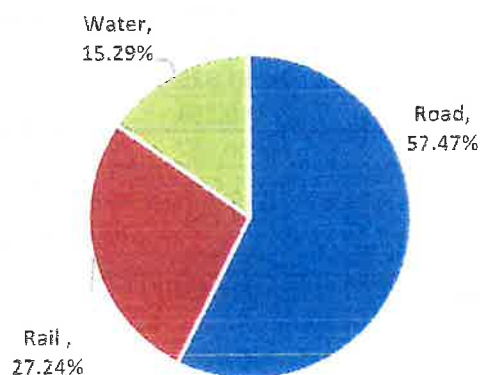
In 2017 the US generated the largest amount of export revenues from the sale of Alberta wheat and the largest number of export shipments.

Alberta 2017 Wheat Exports - USA	
State Delivered	Value \$CA
Minnesota	41,618,669
New York	33,898,051
Ohio	29,097,274
North Dakota	24,623,127
Wisconsin	23,508,350
Oregon	22,753,015
Washington	13,549,152
Missouri	12,384,606
Illinois	9,858,161
Montana	9,308,425
Puerto Rico	7,372,077
Pennsylvania	6,218,316
Side Note: Colorado	5,956,416
North Carolina	5,629,419
Iowa	4,635,222
Nebraska	4,634,835
Michigan	4,137,191
Texas	3,368,839
South Carolina	3,303,054
Utah	2,531,222
Indiana	2,137,020
Virginia	2,099,244
Florida	1,997,436
Tennessee	1,789,275
New Jersey	1,222,601
Kansas	833,012
Massachusetts	761,023
Alabama	689,693
California	476,215
Vermont	191,413
Idaho	65,085
South Dakota	57,770
Maryland	40,793
Arizona	17,776
Kentucky	13,807
New Hampshire	4,322
Oklahoma	3,300
Maine	1,722
Georgia	1,115
<b>Total Volume – 881,945 Tonnes</b>	
<b>Total Value – \$ 275+ Million</b>	

There were 401 export shipments of Wheat from Alberta to the United States in the year 2017. One-hundred and twenty-eight of these shipments were by **rail** reflecting 494,239 tonnes at a value of \$CA 170,776,655. Nine of these export shipments were delivered by **water** (to the eastern seaboard) reflecting 131,540 tonnes at a value of \$CA 31,699,825. And two-hundred and sixty-four of these export shipments were delivered by **truck** reflecting 234,263 tonnes at a value of \$CA 71,099,600.

Sidenote: Revenues per tonne \$345.5 rail; \$239.90 water \$303.50 truck. At first glance it may appear that rail is the most profitable form of transportation. However, when one considers the number of independent truckers that are self-employed hauling Canadian grains across the boarder; vs one train carrying 100 cars across the border; perhaps the real economic benefit should be in our communities and not at railway shareholder AGMs. Just a thought!

The pie-char below shows the percentage of volume of Alberta wheat exported to the United States in 2017 by mode of transportation to its delivery point.



Source: Statistics Canada – PREDA/REDI Custom Request



## CANOLA VERY IMPORTANT CROP IN NORTHWEST ALBERTA

*Canadian-grown canola contributes \$26.7 billion to the Canadian economy each year, including more than 250,000 Canadian jobs and \$11.2 billion in wages. Canola generates one quarter of all farm cash receipts (43,000 farmers grow Canola in Canada). Aside from seeds, the two main processed canola products are oil for human consumption and meal for livestock. Canada has 14 Canola processing plants; three of which are in Alberta.*



Highlights: Canola was originally a trademark name of the Rapeseed Association of Canada, the name was a condensation of "Can" from Canada and "ola". It is now a generic term for edible varieties of rapeseed oil.

Alberta's Canola is exported to 25+ countries in any given year. The tables show the value of exports for Canola **seeds**. By far the largest buyer of Canola seeds is China, accounting for 40% of our Canola export revenues of \$CA 2Billion overall.

<b>Alberta 2017 Export Revenues Canola Seeds – Top Countries</b>	
China	\$ 819,344,351
Japan	\$ 421,911,629
Mexico	\$ 291,666,908
UAE	\$ 139,561,238
Pakistan	\$ 135,995,884
United States	\$ 96,348,386
France	\$ 78,451,843
Germany	\$ 14,551,325
Belgium	\$ 11,949,263
Bangladesh	\$ 10,810,367
Portugal	\$ 9,631,435
Israel	\$ 1,667,323
Nepal	\$ 1,068,548
<b>Total All Countries</b>	<b>\$ 2,034,505,404</b>

Canola oil is a key ingredient in many foods. Its reputation as a healthy oil has created high demand in markets around the world, and overall it is the third-most widely consumed vegetable oil, after soybean oil and palm oil. The oil has many non-food uses and, like soybean oil, is often used interchangeably with non-renewable petroleum-based oils in products, including industrial lubricants, biodiesel, candles, lipsticks, and newspaper inks, depending on the price on the spot market.

## CANOLA                      VERY IMPORTANT CROP IN NORTHWEST ALBERTA

### Transporting Canola:

Canola produced in the Northwest is transported out of the region by rail. The table below shows 94% of the volume produced in the Northwest in the year 2017 was delivered to a grain terminal in the Northwest region.

Source: Canadian Grain Commission

<b>Northwest Alberta – Deliveries to Primary Elevators 2017-18 Canola Seeds</b>	
<b>Production</b>	<b>1,296,900 Metric Tons</b>
<b>Delivery Point</b>	
NAMPA	166.8
RYCROFT	402
HIGH LEVEL	56.2
SMOKY RIVER	160.2
SEXSMITH	134.8
MCLENNAN	132
FALHER	-
GRIMSHAW	173.1
<b>Total Delivered to Elevators</b>	<b>1,225,000 Metric Tons</b>
<b>% of Production Delivered to Elevators</b>	<b>94%</b>

Once the Canola seeds from the Northwest reaches a juncture point where it is mixed with deliveries from other regions, the intermodal transport begins to emerge depending on the point of export from Canada. The table below shows that Alberta had four export shipments of Canola seeds to China in the year 2017. Note, by default ocean carriers are needed to get the product to the buyer.

Source: Statistics Canada – PREDA/REDI Custom Request

<b>Alberta 2017 Canola Seeds – Exports to China</b>			
<b>Export Point</b>	<b>Mode of Transport</b>	<b>Quantity (KMG)</b>	<b>Value (CA\$)</b>
Prince Rupert	Rail / Water	190,480,694	\$107,008,408
Vancouver - Waterfront and Warehouse	Rail / Water	1,230,254,863	\$712,119,214
Vancouver - Waterfront and Warehouse	Rail / Water	26,101	\$13,752
Prince Rupert	Rail / Water	656,374	\$202,977
<b>Export Revenues</b>			<b>\$819,344,351</b>



**CANOLA VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

There were 87 export shipments of Canola seeds from Alberta to the United States in the year 2017. The table below shows 19 of these shipments were by **rail**, representing 46% of the volume of canola seeds exported to the United States in 2017.

<b>Alberta 2017 Canola Seed Exports to United States - RAIL</b>			
<b>State Delivered</b>	<b>Export Point</b>	<b>Volume (KGM)</b>	<b>Value \$CA</b>
Illinois	Emerson (MB)	81350	43,251
North Dakota	Emerson (MB)	7381083	3,626,130
Washington, State	Emerson (MB)	5619577	2,613,116
Illinois	Emerson (MB)	1058052	91,322
North Dakota	Emerson (MB)	2612865	1,481,756
North Dakota	Emerson (MB)	607191	309,880
Washington, State	Fort Frances (ON)	56530	26,293
Illinois	Fort Frances (ON)	1491425	143,416
Washington, State	Kingsgate (BC)	2480028	1,265,097
Washington, State	Kingsgate (BC)	639231	140,798
North Dakota	North Portal (SK)	10283199	5,497,899
Washington, State	North Portal (SK)	28265	13,147
North Dakota	North Portal (SK)	9561636	4,935,723
North Dakota	North Portal (SK)	3505273	1,816,067
California	Northgate (SK)	28291	16,121
Minnesota	Northgate (SK)	1121817	569,660
Washington, State	Northgate (SK)	35560236	16,529,293
Washington, State	Pacific Highway (BC)	828620	405,581
<b>Total Exported to US by Rail</b>		<b>85,685,389</b>	<b>\$40,562,450</b>

Source: Statistics Canada – PREDA/REDI Custom Request

The remaining 68 shipments of Alberta Canola seeds to the United States were delivered by **Truck**; representing 54% of the volume of canola seeds exported to the United States in 2017. The following table shows deliveries by State, the volume delivered, and the value of each shipment.

Note: There were two air cargo shipments of Alberta Canola Seeds in 2017 – Chile and Indonesia for a total volume of 39,000 KGM with a value of \$209,000. Depending on who is paying for the shipping this is an incredibly expensive mode of transport for raw seeds.

**CANOLA VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

Source: Statistics Canada – PREDA/REDI Custom Request

<b>Alberta 2017 Canola Seed Exports to United States - ROAD</b>							
State Delivered	Export Point	Volume (KGM)	Value \$CA	State Delivered	Export Point	Volume (KGM)	Value \$CA
California	Abbotsford (BC)	2880	8,044	New Jersey	Fort Erie (ON)	37735	23,321
Oregon	Abbotsford (BC)	48899	139,370	New York	Fort Erie (ON)	4578	4,015
Washington	Abbotsford (BC)	32675	11,691	S. Carolina	Fort Erie (ON)	1418	1,200
Minnesota	Boissevain (MB)	157581	80,507	Minnesota	Fort Frances (ON)	350009	180,632
N. Dakota	Boissevain (MB)	54085	162,469	N. Dakota	Fort Frances (ON)	15525	7,605
N. Dakota	Boissevain (MB)	1.3E+07	6,897,348	North Dakota	Goodlands (MB)	724203	401,950
N. Dakota	Carievale (SK)	4577214	2,215,095	Oregon	Kingsgate (BC)	181654	96,032
N. Dakota	Coulter (MB)	3369025	1,670,518	Oregon	Kingsgate (BC)	12121	65,319
California	Coutts (AB)	27040	16,535	Oregon	Kingsgate (BC)	245077	172,763
Colorado	Coutts (AB)	538	5,469	Washington	Kingsgate (BC)	87891	310,233
Georgia	Coutts (AB)	24651	16,397	Washington	Kingsgate (BC)	1781724	1,008,264
Idaho	Coutts (AB)	5238	17,457	New York	Lansdowne (ON)	2113	1,705
Montana	Coutts (AB)	40478	123,567	N. Dakota	Lyleton (MB)	876529	394,238
Montana	Coutts (AB)	495015	449,905	Georgia	North Portal (SK)	44359	36,947
N. Dakota	Coutts (AB)	33209	161,790	Illinois	North Portal (SK)	4545	8,854
Washington	Coutts (AB)	620	6,351	Iowa	North Portal (SK)	106108	98,343
California	Emerson (MB)	20507	4,313	N. Carolina	North Portal (SK)	8250	34,232
Iowa	Emerson (MB)	5883	83,310	N. Dakota	North Portal (SK)	786771	3,472,955
Iowa	Emerson (MB)	166141	150,375	N. Dakota	North Portal (SK)	1.4E+07	6,479,963
Iowa	Emerson (MB)	245016	115,546	N. Dakota	North Portal (SK)	1662176	896,493
Minnesota	Emerson (MB)	55124	421,596	Washington	North Portal (SK)	2253	26,997
Minnesota	Emerson (MB)	4.2E+07	21,456,295	Minnesota	Northgate (SK)	71726	64,671
Missouri	Emerson (MB)	41968	27,176	N. Dakota	Northgate (SK)	2076375	1,157,585
Missouri	Emerson (MB)	6197	3,850	Minnesota	Osoyoos (BC)	9005	3,426
Missouri	Emerson (MB)	6197	3,850	California	Pacific Highway (BC)	3173	2,031
Montana	Emerson (MB)	7394	6,657	Oregon	Pacific Highway (BC)	122282	64,773
N. Dakota	Emerson (MB)	204138	994,833	Washington	Pacific Highway (BC)	6479	2,203
N. Dakota	Emerson (MB)	6747585	3,501,019	Montana	Regway (SK)	3462458	1,639,187
N. Dakota	Emerson (MB)	589100	321,318	Oregon	Regway (SK)	5638	5,378
Wisconsin	Emerson (MB)	3346	2,578	Idaho	Rykerts (BC)	7300	3,596
Wisconsin	Emerson (MB)	124	1,678	Colorado	Sarnia (ON)	2331	7,122
Wisconsin	Emerson (MB)	62839	13,713	Illinois	Sarnia (ON)	2464	2,776
Florida	Fort Erie (ON)	4929	5,821	Minnesota	Sprague (MB)	49384	25,075
New Jersey	Fort Erie (ON)	1127	978	Wisconsin	Sprague (MB)	2484	1,457
<b>Total Volume Canola Exported to US - By Road 98,626,726 (KMG) \$55,798,760</b>							

**DRY FIELD PEAS VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

Dry Field Peas are a wonder food! High in protein and very friendly with agricultural sciences. The demand for pulses (field peas are a type) has skyrocketed in recent years as the population in India is exponentially growing and peas are a cheap source of protein (in comparison to meats). India is the major importer of Alberta's field peas.

<b>Alberta 2017 Export Revenues HS 071310 - Peas - Dried and Shelled</b>	
India	\$ 118,436,800
China	\$ 33,517,404
Bangladesh	\$ 11,619,801
United States	\$ 9,895,236
Myanmar (Burma)	\$ 1,651,240
Japan	\$ 1,212,446
Thailand	\$ 831,795
Taiwan	\$ 600,591
Philippines	\$ 478,934
Fiji	\$ 355,557
Colombia	\$ 353,116
Indonesia	\$ 335,158
Korea, South	\$ 232,480
United Arab Emirates	\$ 224,444
Peru	\$ 181,734
Trinidad and Tobago	\$ 164,185
Morocco	\$ 158,018
Ecuador	\$ 135,336
Guyana	\$ 133,980
Qatar	\$ 124,250
Italy	\$ 120,729
Nepal	\$ 107,305
Dominican Republic	\$ 53,587
Suriname	\$ 40,142
Israel	\$ 37,050
Mauritius	\$ 35,317
Panama	\$ 34,554
Vietnam	\$ 30,843
Sweden	\$ 18,653
Spain	\$ 17,698
Malaysia	\$ 13,879
Malta	\$ 10,250
Singapore	\$ 9,973
Sub-Total	\$ 181,172,485
<b>Total All Countries</b>	<b>\$ 181,172,485</b>

Source: Industry Canada – Trade Data

Farmers in the Northwest have increasingly added hectares upon hectares dedicated to dry field peas in the last decade. This is largely due to the high price that can be garnered on the global markets, and the ease of growing them in comparison to other crops.

*Current Issues: Global demand for pulse crops (such a dry field peas) is increasing; especially in India.*

*However, demand is also creating trade instability with our top importer of peas. The Canadian pulse sector felt the impact of three distinct trade actions taken by the Indian government during the 2017-18 crop year.*

**DRY FIELD PEAS      VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

*The first of these was the **removal** of a country-specific exemption on 1 October 2017 that had allowed the importation of pulses to be fumigated with methyl-bromide upon arrival in India without penalty. This meant that Canadian shipments could still be exported to India under the general exemption, which is set to expire on 30 June 2019. However, Canadian shipments were now subject to a five-fold increase in the regular inspection fees payable upon arrival in India, which equated to about \$15 per tonne. The loss of these exemptions was compounded by an ever-expanding series of restrictive trade measures. Beyond the Indian government's requirement for the fumigation of all imported grain, it moved to increase tariffs on several key crops, including the raising of tariffs on: **peas to 50% from 0%**; lentils and chickpeas to 30% from 10%; and on chickpeas to 60%.*

*Further to this, in April 2018 India introduced limits on the volume of imported peas, which was initially restricted to 100,000 tonnes for three months, but frequently extended and ultimately taking the form of an import prohibition currently set to expire on 31 March 2019. These measures have had a significant impact on pulse deliveries, which were virtually halved as the Canadian industry started to deal with the realities of being effectively shutout of a market that absorbed about 40% of Canada's pulse production, as well as the financial fallout from declining prices and margins.*

~~*Moreover, in the face of what was expected to be a continuing global oversupply, few believed that the situation would reverse itself in the near term. Fortunately, China moved to take advantage of the situation, virtually doubling its Canadian pea imports for the year. Still, the market damage had been done, and many industry observers predicted that a sharp pullback in Canadian pulse production would ensue in 2018. With year-end statistics showing a 13% decline in seeded acres, these predictions appeared to have been correct.*~~

Source: Annual Report of the Monitor – Canadian Grain Handling and Transportation System



**DRY FIELD PEAS VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

**Transporting Field Peas:** Field Peas produced in the Northwest are transported out of the region by rail. The table below shows 98% of the volume produced in the Northwest in the year 2017 was delivered to a grain terminal in the Northwest region.

Source: Canadian Grain Commission

<b>Northwest Alberta – Deliveries to Primary Elevators 2017-18</b>	
<b>Field Peas</b>	
<b>Production</b>	<b>399,400 Metric Tonnes</b>
<b>Delivery Point</b>	
NAMPA	14.8
RYCROFT	133.9
HIGH LEVEL	21.5
SMOKY RIVER	40.3
SEXSMITH	63.3
MCLENNAN	20.0
FALHER	23.7
GRIMSHAW	73.5
<b>Total Delivered to Elevators</b>	<b>391,100 Metric Tonnes</b>
<b>% of Production Delivered to Elevators</b>	<b>98%</b>

Once the field peas from the Northwest reaches a juncture point and mixed with deliveries from other regions the intermodal transport begins to emerge depending on the point of export from Canada. In total, in 2017 there were 141 export shipments of field peas from Alberta to 33 countries. The largest bulk of volume shipped has been exported to India; which accounted for 65% of all export revenues generated from the sale of field peas. China, Bangladesh and the United States are the next top three buyers of Alberta field peas. The next tables show each shipment for each of these countries along with the point of export, the mode of transport, the volume exported and the value of each export.

**DRY FIELD PEAS VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

Source: Statistics Canada – PREDA/REDI Custom Request

<b>Alberta 2017 Export of Field Peas to India</b>			
<b>Exit Point</b>	<b>Mode of Transport</b>	<b>Volume (KGM)</b>	<b>Value \$CA</b>
Vancouver	Rail / Water	262950	103,434
Vancouver	Rail / Water	2316820	992,751
Vancouver	Rail / Water	4995400	1,743,750
Vancouver	Rail / Water	295,669,002	115,596,865
<b>Total</b>		<b>303,244,172</b>	<b>\$118,436,800</b>

India is the largest buyer of Alberta Field Peas, representing 65% of the total export revenues generated in the year 2017.

Source: Statistics Canada – PREDA/REDI Custom Request

Field pea (*Pisum sativum* L.), a native of Southwest Asia, was among the first crops cultivated by man. Wild field pea can still be found in Afghanistan, Iran and Ethiopia. Today, the countries leading in field pea production include the Soviet Union, China, India, Canada, and the United States. In Canada over 450,000 acres are dedicated to the growing of the field pea. Cultivation has led to a gradual separation of types: those grown for vegetable use, those grown for seed and fodder, and the edible podded types which have evolved most recently.

<b>Alberta 2017 Export of Field Peas to China</b>			
<b>Exit Point</b>	<b>Mode of Transport</b>	<b>Volume (KGM)</b>	<b>Value \$CA</b>
Prince Rupert	Rail / Water	3412272	2,452,651
Vancouver	Rail / Water	1471992	1,218,839
Vancouver	Rail / Water	241000	254,856
Vancouver	Rail / Water	355820	182,707
Prince Rupert	Rail / Water	620040	219,755
Vancouver	Rail / Water	4601135	1,784,461
Montréal	Rail / Water	272170	109,039
Prince Rupert	Rail / Water	1247655	633,753
Vancouver	Rail / Water	67166804	26,361,747
	<b>Total</b>	<b>79,388,888</b>	<b>\$33,217,808</b>

<b>Alberta 2017 Export of Field Peas to Bangladesh</b>			
<b>Exit Point</b>	<b>Mode of Transport</b>	<b>Volume (KGM)</b>	<b>Value \$CA</b>
Vancouver	Rail / Water	3,100,000	\$11,619,801

Source: Statistics Canada – PREDA/REDI Custom Request



**DRY FIELD PEAS VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

Source: Industry Canada – Trade Data

<b>Alberta 2017 Export Revenues Field Peas – United States</b>	
Iowa	2,207,391
North Dakota	1,698,821
California	1,547,342
Washington	1,285,870
Montana	779,596
Nebraska	771,734
Pennsylvania	432,713
Utah	303,207
Kansas	300,720
Idaho	132,764
Minnesota	113,120
Mississippi	82,771
South Carolina	55,516
Wisconsin	53,537
Ohio	39,228
Texas	39,122
South Dakota	20,193
New York	14,059
New Jersey	13,509
Oregon	4,023
<b>Total</b>	<b>\$9,895,236 CA\$</b>

There were 69 export shipments of Alberta field peas to the United States in the year 2017; representing a volume of 15,725,009 KGM at a value of \$9.9 Million. Of these shipments 16 were delivered by **rail** while the remaining 53 shipments were delivered by **truck**.

<b>Alberta 2017 Field Pea Exports to United States – Transport Mode</b>		
<b>Transport</b>	<b>Volume (KGM)</b>	<b>Value \$CA</b>
Rail	5,280,602	3,319,451
Road	10,444,407	6,573,037
<b>Total</b>	<b>15,725,009 KGM</b>	<b>\$9.9 Million</b>

Source: Statistics Canada – PREDA/REDI Custom Request

Current Issue: California paid a total of \$US 20,293,128 to import field peas in the year 2017 - \$US16,387,034 of those imports came from Canada. The current craze over meat-alternatives plant-based proteins has skyrocketed the demand for peas in California. Why?

**“Beyond Meat” is headquartered in California!**

Currently ‘Beyond Meat ‘ is the best-performing U.S. IPO of the year. A&W debuted the “Beyond Meat” burger at its 925 stores across Canada in July 2018. The fast food chain itself doesn’t make the burgers, but buys them from the high-tech food company “Beyond Meat”. Right now, A&W Canada is the California-based food company’s biggest restaurant partner. The market for meat alternatives has been getting a lot of attention recently, as major players such as Nestlé and Tyson Foods have entered the space and Barclays has valued its potential at \$140 billion a year.



*Beyond Meat is a Los Angeles-based producer of plant-based meat substitutes founded in 2009 by Ethan Brown. The company's products became available across the United States in 2013. In May 2016, it released the first plant-based burger to be sold in the meat section of grocery stores, on an international basis.*

**OATS VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

Transport to US: Rail 22% Road 76% Water <1%  
 Statistics Canada – PREDA/REDI Custom Request

HS 1004 - Oats Alberta 2017 Export Revenues (\$CA)	
Iowa	\$ 7,835,145
Minnesota	\$ 5,939,935
Wisconsin	\$ 4,708,937
Nebraska	\$ 2,532,010
Ohio	\$ 1,897,774
Oregon	\$ 1,038,312
Pennsylvania	\$ 428,185
California	\$ 401,276
North Dakota	\$ 351,652
South Dakota	\$ 249,832
Kentucky	\$ 220,387
New York	\$ 174,850
Texas	\$ 161,039
Idaho	\$ 103,694
All Other Us States	\$836,288
<b>Sub-total US</b>	<b>\$ 26,879,316</b>
Other Countries	\$ 1,907,566
Total All Countries	\$ 28,786,882

**93%**

Source – Industry Canada Trade Data

Oats are a wonder crop. Easy to store, highly nutritious for both humans and livestock, relatively cheap to transport by volume, and is widely used in the cosmetic industry. There are several grades of oats available to end-users.

Feed Oats (no processing) to various levels of drying and screening (Nil-Dockage, Double Cleaned, and Triple Cleaned). **Grout** is the inside kernel of a cereal grain mostly used for higher end human consumption products while the **hulls** are primarily used for fibre, feed, and biomass. Alberta's northwest is renowned for its "Pony Oats" a superior quality processed oat primarily used to feed high end race or competition horses with very selective customers. Oat farmers in Alberta target this niche market, recognizing they get more money than selling food-grade bulk oats on the global markets. Very Smart!

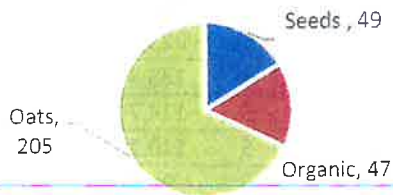
HS 110319 - Cereal Groats and Meal Alberta 2017 Export Revenues (\$CA)	
California	\$ 2,240,688
Nebraska	\$ 1,895,775
Utah	\$ 1,013,296
Wisconsin	\$ 925,841
Minnesota	\$ 847,508
Illinois	\$ 817,060
Iowa	\$ 660,234
Pennsylvania	\$ 244,875
Texas	\$ 223,299
Missouri	\$ 185,742
Connecticut	\$ 114,724
Michigan	\$ 110,253
Oregon	\$ 91,822
Colorado	\$ 45,470
Indiana	\$ 38,565
Washington	\$ 38,346
Montana	\$ 31,683
Oklahoma	\$ 28,763
New York	\$ 26,114
Massachusetts	\$ 24,497
South Carolina	\$ 14,736
North Dakota	\$ 4,809
Ohio	\$ 4,400
<b>Sub-total US</b>	<b>\$ 9,628,500</b>
Others	\$ 4,674,806
Total All Countries	\$ 14,303,306

**69%**

**OATS VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

**Transporting Oats:** As noted in the previous table, in 2017 Customs Canada cleared Alberta oats exports at a value of \$CA 28.7 Million. These export revenues represented 301 export shipments of Oats for an overall volume of 103,494,592KGM with most of these export shipments going to the United States. There are three sub-categories listed under the Harmonized Coding System (HS) for Oats. The chart

Alberta 2017 Oat Exports - 301 Shipments-  
By HS Code



shows the number of shipments for each of these HS product categories: 1) HS1004.10.00 Oats, seed for sowing; 2) HS1004.90.10 Oat, certified organic, o/t seed for sowing; and 3) HS 1004.90.90 Oat, o/t certified organic, o/t seed for sowing (o/t means other than). From an export perspective it is interesting to identify if these categories have preferred international customers.

Source: Statistics Canada – PREDA/REDI Custom Request

2017 Alberta Oat Exports	Oats 205 Shipments	Seeds 49 Shipments	Organic 47 Shipments	Total Volume KGM
Australia		164		164
Chile		2,798		2,798
China	37,400	548,864	41,714	627,978
Cuba			41,250	41,250
Ecuador	1,059,681			1,059,681
France	3			3
Japan	1,444,754	22,691	313,075	1,780,520
Mexico	6,053	148,536		154,589
Mongolia		7,798		7,798
Morocco	1,340			1,340
New Zealand	3,787			3,787
Peru	515,900			515,900
Philippines	8,022			8,022
Saint Pierre and MIC	20			20
Saudi Arabia	20,905			20,905
Singapore			150	150
South Korea	282,122		603,029	885,151
South Sudan	3,021			3,021
Taiwan			365	365
Thailand	3,428			3,428
Trinidad and Tobago	10,050			10,050
United Arab Emirates	12,246			12,246
United Kingdom	5,288			5,288
United States	97,245,665	433,514	670,959	98,350,138
<b>Total Volume (KGM)</b>	<b>100,659,685 KGM</b>	<b>1,164,365 KGM</b>	<b>1,670,542 KGM</b>	<b>103,494,592 KGM</b>

**OATS VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

When Alberta's 301 Oat export shipments for the year 2017 are cross-referenced with country and oat HS category preferential international customers emerge. Organic Oats (by volume) are largely purchased by Japan and South Korea. China, United States and Mexico account for most Oat seeds for sowing sold in the year 2017.

The United States accounts for 97% of all generic oats (not organic, not sold for sowing). Generic oats are also the most significant volume sold for Oats products in the *Harmonized Coding System* (HS). The table below shows the value and the top six states (>1M) Alberta generic oats are sold.

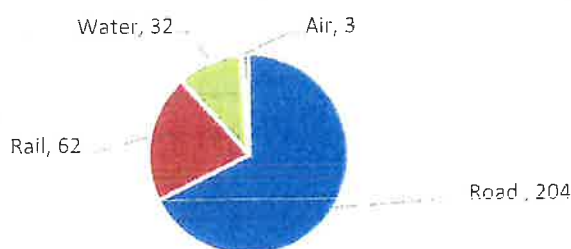
<b>Alberta Oat Exports to USA – Top Six States (\$CA)</b>				
	2014	2015	2016	2017
Iowa	13,800,518	14,609,636	11,662,140	7,824,638
Minnesota	7,574,756	7,817,744	4,913,544	5,936,446
Wisconsin	3,651,115	6,068,120	5,378,003	4,697,972
Nebraska	5,294,113	4,310,259	2,494,816	2,531,107
Ohio	3,854,638	1,499,640	2,027,774	1,893,864
Oregon	1,468,874	1,630,224	1,600,708	1,035,972

Source: Industry Canada – Trade Data

The transportation of Alberta oats is largely by truck; especially into the United States.

<b>Alberta Oat Exports – Shipments - By Mode of Transport</b>					
HS Code	Air	Rail	Road	Water	Total #
Oats (Generic)	1	57	126	21	205
Oat - Seeds	1	1	42	5	49
Oat - Organic	1	4	36	6	47
<b>Total 2017 Export Shipments</b>	<b>3</b>	<b>62</b>	<b>204</b>	<b>32</b>	<b>301</b>

Alberta 2017 Oat Export - # of Shipments By Mode of Transport



Source: Statistics Canada – PREDA/REDI Custom Request



**OATS VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

Rail shipment is generally not captured in the grain elevator system for Oat exports in the Northwest. The previous table showed there were 62 export shipments of oats by rail. The table below shows the volume of Oats exported from Alberta, by rail to the United States (State drop-off point identified).

Source: Statistics Canada – PREDA/REDI Custom Request

Alberta 2017 Oat Export – By Rail					
Oats - HS Code	Country	US State	Export Point	Volume (KGM)	Value (\$CA)
Oats, seed for sowing	MX		Emerson, MB	148,536	\$54,462
Oat, o/t certified organic, o/t seed for sowing	MX		Vancouver, BC	6,053	\$1,620
Oat, o/t certified organic, o/t seed for sowing	US	Oregon	Coutts	5,025	\$1,122
Oat, certified organic, o/t seed for sowing	US	Wisconsin	Emerson, MB	31,690	\$17,249
Oat, o/t certified organic, o/t seed for sowing	US	Colorado	Emerson, MB	30,850	\$6,908
Oat, o/t certified organic, o/t seed for sowing	US	Iowa	Emerson, MB	5,267,038	\$1,650,234
Oat, o/t certified organic, o/t seed for sowing	US	Kentucky	Emerson, MB	297,830	\$99,422
Oat, o/t certified organic, o/t seed for sowing	US	Minnesota	Emerson, MB	11,705,800	\$3,104,806
Oat, o/t certified organic, o/t seed for sowing	US	Missouri	Emerson, MB	146,846	\$23,495
Oat, o/t certified organic, o/t seed for sowing	US	Nebraska	Emerson, MB	2,556,113	\$683,542
Oat, o/t certified organic, o/t seed for sowing	US	Ohio	Emerson, MB	186,144	\$61,847
Oat, o/t certified organic, o/t seed for sowing	US	Wisconsin	Emerson, MB	2,256,933	\$616,180
Oat, certified organic, o/t seed for sowing	US	Minnesota	Fort Frances, ON	16,304	\$5,185
Oat, o/t certified organic, o/t seed for sowing	US	Illinois	Fort Frances, ON	21,043	\$5,843
Oat, o/t certified organic, o/t seed for sowing	US	Indiana	Fort Frances, ON	20,365	\$5,957
Oat, o/t certified organic, o/t seed for sowing	US	Iowa	Fort Frances, ON	18,629,706	\$5,697,042
Oat, o/t certified organic, o/t seed for sowing	US	Kentucky	Fort Frances, ON	392,675	\$108,421
Oat, o/t certified organic, o/t seed for sowing	US	Louisiana	Fort Frances, ON	39,201	\$11,567
Oat, o/t certified organic, o/t seed for sowing	US	Minnesota	Fort Frances, ON	5,905,276	\$1,422,729
Oat, o/t certified organic, o/t seed for sowing	US	Nebraska	Fort Frances, ON	1,566,426	\$455,348
Oat, o/t certified organic, o/t seed for sowing	US	New Mexico	Fort Frances, ON	5,318	\$1,226
Oat, o/t certified organic, o/t seed for sowing	US	Ohio	Fort Frances, ON	435,401	\$141,239
Oat, o/t certified organic, o/t seed for sowing	US	Oregon	Fort Frances, ON	10,720	\$4,488
Oat, o/t certified organic, o/t seed for sowing	US	Texas	Fort Frances, ON	239,110	\$76,107
Oat, o/t certified organic, o/t seed for sowing	US	Wisconsin	Fort Frances, ON	15,378,932	\$3,707,587
Oat, o/t certified organic, o/t seed for sowing	US	Oregon	Kingsgate, BC	11,724	\$5,843
Oat, o/t certified organic, o/t seed for sowing	US	Florida	North Portal, SK	13,698	\$5,268
Oat, o/t certified organic, o/t seed for sowing	US	Iowa	North Portal, SK	288,229	\$54,495
Oat, o/t certified organic, o/t seed for sowing	US	Minnesota	North Portal, SK	468,980	\$139,206
Oat, o/t certified organic, o/t seed for sowing	US	Missouri	North Portal, SK	6,565	\$1,181

Alberta 2017 Oat Export – By Rail (cont'd)					
Oats - HS Code	Country	US State	Export Point	Volume (KGM)	Value (\$CA)
Oat, o/t certified organic, o/t seed for sowing	US	Virginia	North Portal, SK	18,639	\$11,191
Oat, o/t certified organic, o/t seed for sowing	US	Colorado	Northgate, SK	80,982	\$14,194
Oat, o/t certified organic, o/t seed for sowing	US	Iowa	Northgate, SK	402,352	\$72,286
Oat, o/t certified organic, o/t seed for sowing	US	Louisiana	Northgate, SK	248,727	\$43,613
Oat, o/t certified organic, o/t seed for sowing	US	Minnesota	Northgate, SK	514,073	\$97,498
Oat, o/t certified organic, o/t seed for sowing	US	Missouri	Northgate, SK	63,592	\$10,779
Oat, o/t certified organic, o/t seed for sowing	US	Oklahoma	Northgate, SK	35,564	\$5,601
Oat, o/t certified organic, o/t seed for sowing	US	Texas	Northgate, SK	284,494	\$52,029
Oat, o/t certified organic, o/t seed for sowing	US	Wisconsin	Northgate, SK	1,163,883	\$207,009
Oat, o/t certified organic, o/t seed for sowing	US	Arizona	Pacific Highway, BC	5,905	\$1,112
Oat, o/t certified organic, o/t seed for sowing	US	California	Pacific Highway, BC	1,215,908	\$256,722
Oat, o/t certified organic, o/t seed for sowing	US	Colorado	Pacific Highway, BC	70,790	\$24,873
Oat, o/t certified organic, o/t seed for sowing	US	Iowa	Pacific Highway, BC	10,934	\$4,599
Oat, o/t certified organic, o/t seed for sowing	US	Minnesota	Pacific Highway, BC	14,991	\$4,993
Oat, o/t certified organic, o/t seed for sowing	US	New Mexico	Pacific Highway, BC	105,812	\$41,201
Oat, o/t certified organic, o/t seed for sowing	US	Oregon	Pacific Highway, BC	3,309,354	\$1,004,041
Oat, o/t certified organic, o/t seed for sowing	US	Texas	Pacific Highway, BC	11,659	\$3,404
Oat, o/t certified organic, o/t seed for sowing	US	Washington,	Pacific Highway, BC	80,068	\$18,944
Oat, o/t certified organic, o/t seed for sowing	US	Wisconsin	Pacific Highway, BC	30,976	\$17,263
Oat, o/t certified organic, o/t seed for sowing	US	Iowa	Sarnia, ON	390,061	\$109,606
Oat, o/t certified organic, o/t seed for sowing	US	Ohio	Sarnia, ON	74,726	\$17,204
Oat, certified organic, o/t seed for sowing	US	Pennsylvania	St-Bernard, QU	28,430	\$6,850
Oat, o/t certified organic, o/t seed for sowing	US	New York	St-Bernard, QU	33,208	\$8,073
Oat, o/t certified organic, o/t seed for sowing	US	North Carolina	St-Bernard, QU	27,051	\$5,811
Oat, o/t certified organic, o/t seed for sowing	US	Pennsylvania	St-Bernard, QU	461,580	\$100,144
Oat, certified organic, o/t seed for sowing	US	Maryland	Trout River, QU	5,670	\$1,274
Oat, o/t certified organic, o/t seed for sowing	US	Florida	Trout River, QU	85,127	\$14,738
Oat, o/t certified organic, o/t seed for sowing	US	Georgia	Trout River, QU	50,057	\$11,026
Oat, o/t certified organic, o/t seed for sowing	US	Maryland	Trout River, QU	65,882	\$15,670
Oat, o/t certified organic, o/t seed for sowing	US	New York	Trout River, QU	5,584	\$1,358
Oat, o/t certified organic, o/t seed for sowing	US	South Carolina	Trout River, QU	27,728	\$6,055
Oat, o/t certified organic, o/t seed for sowing	US	Kentucky	Windsor, ON	35,481	\$5,164



**BARLEY VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

Barley is ranked fourth internationally among grains in quantity produced (141 million tonnes globally) behind corn, rice and wheat.

HS 100310 - Barley: Seed			
Idaho	\$	258,122	
Montana	\$	205,369	
Maine	\$	80,843	
New York	\$	64,735	
Oregon	\$	55,779	
Missouri	\$	52,104	
Pennsylvania	\$	37,397	
Wyoming	\$	34,878	
Wisconsin	\$	27,902	
Vermont	\$	24,252	
Ohio	\$	11,450	
Illinois	\$	7,095	
North Dakota	\$	5,305	
Minnesota	\$	4,916	
Alaska	\$	2,429	
Washington	\$	2,043	
<b>Sub-Total US</b>	<b>\$</b>	<b>874,619</b>	<b>97%</b>
Other Countries	\$	23,941	
All Countries	\$	898,560	

Barley is used in soups and stews, and in barley bread of various cultures. There are no processing plants for barley in the Northwest; all barley that leaves the region is sent to processors elsewhere in Alberta or Canada. There are currently 25 barley merchants (direct buyers from the farm) in Alberta.



**Canada Malting**

A GrainCorp business

**Barley Transport to US:**  
**76% Road 24% Rail 1% Water**

Barley, a member of the grass family, is a major cereal grain. It was one of the first cultivated grains, particularly in Eurasia as early as 10,000 years ago. Barley has been used as animal fodder, as a source of fermentable material for beer and certain distilled beverages, and as a component of various health foods.

HS 110710 – Barley Malt - Not Roasted	
California	\$ 40,787,378
North Carolina	\$ 15,201,710
Colorado	\$ 12,812,299
Illinois	\$ 11,692,340
Vermont	\$ 10,027,977
Washington	\$ 7,555,610
New York	\$ 4,953,242
Tennessee	\$ 1,342,563
Texas	\$ 960,275
Hawaii	\$ 944,474
Georgia	\$ 794,866
Minnesota	\$ 591,955
Kansas	\$ 522,992
Arizona	\$ 405,253
Delaware	\$ 219,071
Wisconsin	\$ 140,247
Massachusetts	\$ 120,106
New Hampshire	\$ 68,589
Virginia	\$ 47,154
Pennsylvania	\$ 22,137
Maryland	\$ 20,775
Missouri	\$ 17,632
<b>Sub-Total - US</b>	<b>109,248,645</b>
Other Countries	\$ 131,031,757
All Countries	\$ 241,155,021

**ALFALFA VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

<b>HS 120921 - Lucerne (Alfalfa) Seeds Alberta 2017 Export Revenues to US(\$CA) Distribution by State</b>	
Idaho	\$ 27,650,651
Montana	\$ 417,365
Washington	\$ 377,927
California	\$ 229,516
Iowa	\$ 192,553
Minnesota	\$ 120,175
Indiana	\$ 105,993
New York	\$ 14,852
Vermont	\$ 12,301
<b>Sub-total USA</b>	<b>\$ 29,121,333</b>
Other Countries	\$ 1,774,003
<b>Total Export Revenues</b>	<b>\$ 30,895,336</b>

Ninety-four percent (94%) of all of Alberta's fescue seed export revenues comes from sales to the USA. Note that of \$29.1M imported by the US - \$27.6M went to Idaho. Idaho is Cowboy country with numerous cattle ranches. Alfalfa seed grows superior feed. The table below shows in greater detail Alberta's export of Alfalfa seeds; approximately a 60/40 split between certified and non-certified. Certified indicates confirmation of seed type. It does not relate to organic. There is a small differential in favor of the certified paperwork when

exporting, however, because the majority of seeds are being used to grow feed for livestock the premium is minimal (<2% per KGM more than non-certified).

<b>Alfalfa Seeds – By Type Exports to USA – Certified vs Non-Certified</b>			
<b>HS Code 8<sup>th</sup> Level</b>	<b>Alfalfa Seeds – By Type</b>	<b>Volume (KGM)</b>	<b>Value \$CA</b>
1209.21.10	Lucerne (alfalfa) seeds, for sowing, certified	3,591,021	\$ 17,997,358.00
1209.21.90	Lucerne (alfalfa) seeds, for sowing, o/t certified	2,260,535	\$ 12,897,978.00
<b>Total</b>		<b>5,851,556</b>	<b>\$ 30,895,336.00</b>

Source: Statistics Canada – PREDA/REDI Custom Request

**Transporting Alfalfa Seeds:** There were 24 export shipments of Alfalfa seeds from Alberta in the year 2017. Alfalfa seeds are transported from the farm by truck to a local seed cleaning plant. The seeds are bagged by pre-weights and then loaded to a container and transported by Truck to the exit point (water if overseas) or by truck if the destination is within the USA.

Source: Canada Customs – PREDA/REDI Custom Request

<b>Alberta 2017 Export Revenues – Alfalfa Seeds – By Country – Export Point, Mode of Transport, Volume</b>					
<b>Alafala Seed - Type</b>	<b>Country</b>	<b>Export Point</b>	<b>Mode</b>	<b>Volume (KGM)</b>	<b>Value \$CA</b>
Lucerne (alfalfa) seeds, for sowing, certified	Argentina	Montréal, QU	Water	24,000	\$ 112,123
Lucerne (alfalfa) seeds, for sowing, certified	Argentina	Vancouver, BC	Water	173,669	\$ 659,698
Lucerne (alfalfa) seeds, for sowing, certified	Chile	Niagara Falls, ON	Water	1125	\$ 4,112
Lucerne (alfalfa) seeds, for sowing, o/t certified	Chile	Vancouver, BC	Water	895,02	\$ 317,891
Lucerne (alfalfa) seeds, for sowing, o/t certified	China	Prince Rupert, BC	Water	40,000	\$ 198,118
Lucerne (alfalfa) seeds, for sowing, certified	Netherlands	Montréal, QU	Water	42,686	\$ 218,969
Lucerne (alfalfa) seeds, for sowing, certified	Turkey	Montréal, QU	Water	51,050	\$ 263,092
Lucerne (alfalfa) seeds, for sowing, certified	USA	Various	Road	3,298,491	\$ 16,739,364
Lucerne (alfalfa) seeds, for sowing, o/t certified	USA	Various	Road	2,131,033	\$ 12,381,969
<b>Total</b>				<b>5,851,556</b>	<b>\$ 30,895,336.00</b>

**ALFALFA VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

In 2017 the US spent \$US 48.7 Million importing Alfalfa seeds, with 83% coming from Canada; and most of Canada's sales coming from Alberta. Notice the table below showing other global markets that sell alfalfa seeds to the US. California imports \$5.8 Million worth from the Australian region. There may be potential expansion opportunities for Northwest farmers.

Source: PREDA / REDI Special Access Request – US Trade portal

All US 2017 Imports \$US - HS 120921 - Lucerne (Alfalfa) Seeds (\$US)					
	Asia	Australia and Oceania	Europe	Canada	Total \$US
All States	\$ 6,750	\$ 6,391,516	\$ 1,739,656	\$ 40,610,145	\$ 48,748,067
Arizona		\$ 138,250	\$ 7,945		\$ 146,195
California		\$ 5,862,558	\$ 229,151	\$ 1,555,848	\$ 7,647,557
Florida				\$ 181,763	\$ 181,763
Idaho				\$ 30,605,157	\$ 30,605,157
Illinois				\$ 10,184	\$ 10,184
Indiana				\$ 609,557	\$ 609,557
Iowa			\$ 749,490	\$ 589,876	\$ 1,339,366
Kentucky		\$ 387,200	\$ 312,000	\$ 136,248	\$ 835,448
Maine				\$ 12,984	\$ 12,984
Michigan				\$ 153,257	\$ 153,257
Minnesota				\$ 767,519	\$ 767,519
Missouri				\$ 112,906	\$ 112,906
Montana				\$ 632,129	\$ 632,129
Nebraska		\$ 3,508		\$ 12,250	\$ 15,758
New York	\$ 6,750			\$ 453,904	\$ 460,654
North Dakota				\$ 611,996	\$ 611,996
Ohio				\$ 191,087	\$ 191,087
Oklahoma				\$ 173,926	\$ 173,926
Oregon			\$ 22,800	\$ 400,117	\$ 422,917
Pennsylvania				\$ 383,350	\$ 383,350
South Dakota				\$ 15,730	\$ 15,730
Tennessee			\$ 418,270	\$ 256,233	\$ 674,503



**ALFALFA VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

**Alberta exported 100% of its Alfalfa meal / pellets to the United States in the year 2017.**

<b>HS 121410 - Lucerne (Alfalfa) Meal and Pellets Alberta 2017 Export Revenues (\$CA)</b>	
Florida	\$ 3,532,579
Ohio	\$ 546,938
Pennsylvania	\$ 438,708
Vermont	\$ 330,914
Kentucky	\$ 301,734
New York	\$ 255,098
Texas	\$ 235,064
Indiana	\$ 181,551
Tennessee	\$ 94,846
North Carolina	\$ 85,611
Delaware	\$ 80,684
Oklahoma	\$ 73,676
Michigan	\$ 52,789
New Jersey	\$ 44,702
Maine	\$ 43,457
Virginia	\$ 30,935
Connecticut	\$ 30,479
Maryland	\$ 29,429
Massachusetts	\$ 22,583
New Hampshire	\$ 11,474
Montana	\$ 8,389
Sub-total USA	\$ 6,431,640
<b>Total AB Export Revenues</b>	<b>\$ 6,431,640</b>

<b>HS 121410 - Lucerne (Alfalfa) Meal and Pellets Canada 2017 Export Revenues (\$CA)</b>		
Alberta	\$ 6,431,640	
Ontario	\$ 5,234,544	50% NY and VT
Saskatchewan	\$ 3,576,652	30% WI
Quebec	\$ 222,278	70% VT
<b>Sub-total - USA</b>	<b>\$ 15,465,114</b>	
<b>HS 121410 - Lucerne (Alfalfa) Meal and Pellets USA 2017 Imports</b>		
Africa	\$ 6,579	
Asia	\$ 363,770	
Europe	\$ 486,726	
Mexico	\$ 3,610,192	60% California
S/CI America	\$ 7,450	

Yet, Alberta's sale of Alfalfa meal and pellets to the US accounts for less than 40% of the total Alfalfa imported by the US. - \$3.6M of alfalfa meal is imported by the US from Mexico. Again, identifying another potential market expansion for Northwest farmers. The table below shows the vast majority of the alfalfa meal exported is non-dehydrated.

Source: PREDA/ REDI Custom Request – Canada Customs – HS Level 8

HS Code 8 <sup>th</sup> Level	Alfalfa Meal & Pellets Exports to USA – Dehydrated vs Non-Dehydrated	Volume (Tonnes)	Value \$CA
1214.10.10	Lucerne (alfalfa) meal and pellets, dehydrated	768	\$ 450,072.00
1214.10.90	Lucerne (alfalfa) meal and pellets, o/t dehydrated	13,181	\$ 5,981,568.00
	<b>Total</b>	<b>13,949</b>	<b>\$ 6,431,640</b>

**ALFALFA VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

The table below shows a summary of export revenues for Alfalfa - \$CA 30,895,336 for seeds (94% sold to the US) ; \$CA6,431,640 for meal & pellets (100% sold to the US); and \$CA 20,598,217.00 (<1% sold to the US).

Alberta Export Revenues – Alfalfa by Type and Volume		Volume	Value
1209.21.10	Lucerne (alfalfa) seeds, for sowing, certified	3,591,021 (KGM)	\$17,997,358
1209.21.90	Lucerne (alfalfa) seeds, for sowing, o/t certified	2,260,535 (KGM)	\$12,897,978
1214.10.10	Lucerne (alfalfa) meal and pellets, dehydrated	768 Tonne	\$450,072
1214.10.90	Lucerne (alfalfa) meal and pellets, o/t dehydrated	13,181 Tonne	\$5,981,568
1214.90.11	Alfalfa in cubes, dehydrated	3,241 Tonne	\$1,175,109
1214.90.19	Alfalfa, nes, in bales or loose	59,287 Tonne	\$19,423,108

Alberta 2017 Export Revenues – Alfalfa Bales / Loose (Non-US)				
Country	Export Point	Mode	Volume Tonnes	\$CA
China	Calgary, AB	Air	4745	1,574,752
China	P Rupert, BC	Water	7784	2,328,866
China	Vancouver, BC	Water	29984	10,147,609
China	Vancouver, BC	Air	282	78,659
Dom Rep	Vancouver, BC	Water	25	12,249
India	Vancouver, BC	Water	11	3,849
Japan	Calgary, AB	Air	1491	412,129
Japan	P Rupert, BC	Water	428	136,433
Japan	Vancouver, BC	Water	4615	1,684,623
S. Korea	Calgary, AB	Air	114	30,277
S. Korea	Vancouver, BC	Water	6652	2,103,878
UAE	Calgary, AB	Air	75	16,872
UAE	Vancouver, BC	Water	2116	655,421
UK	Vancouver, BC	Water	50	21,145
Vietnam	Vancouver, BC	Water	25	9,109
<b>Total – Non-US Sales</b>			<b>58,397</b>	<b>19,215,871</b>

72% of Alberta's export revenues for Alfalfa Bales / Loose came from sales to China in the year 2017.

FYI: Wikipedia - Alfalfa (/æɪˈfælfə/), also called lucerne, is a perennial flowering plant in the legume family. It is cultivated as an important forage crop in many countries around the world. It is used for grazing, hay, and silage, as well as a green manure and cover crop. The name alfalfa is used in North America. The name lucerne is the more commonly used name in the United Kingdom, South Africa, Australia, and New Zealand. It has been cultivated as livestock fodder since at least the era of the ancient Greeks and Romans. Alfalfa sprouts are a common ingredient in dishes made in South Indian cuisine.

**FESCUE VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

HS 120923 – All Fescue Seeds Alberta 2017 Export Revenues (\$CA)	
Oregon	\$ 12,707,990
Minnesota	\$ 1,931,236
Wisconsin	\$ 1,604,971
Pennsylvania	\$ 1,310,085
Massachusetts	\$ 1,151,989
Illinois	\$ 898,934
Montana	\$ 812,902
Missouri	\$ 751,497
Michigan	\$ 743,849
Indiana	\$ 651,324
Ohio	\$ 601,091
New Jersey	\$ 543,393
North Dakota	\$ 532,317
New York	\$ 481,768
Vermont	\$ 260,811
Maryland	\$ 253,420
Tennessee	\$ 220,573
North Carolina	\$ 210,495
Washington	\$ 190,962
Idaho	\$ 150,352
Colorado	\$ 107,817
Virginia	\$ 86,369
Kentucky	\$ 67,491
Nebraska	\$ 54,718
New Hampshire	\$ 51,818
Maine	\$ 24,096
California	\$ 23,856
<b>Sub-total USA</b>	<b>\$ 26,426,124</b> <b>90%</b>
Other Countries	\$ 2,977,860
<b>Total All Countries</b>	<b>\$ 29,403,984</b>

Almost all of Alberta’s fescue (grass) seeds are sold to the US (90%) with the vast majority being bought by Oregon.

Oregon has a grasslands coalition made up of numerous brokers that either sell Alberta’s fescue seeds directly or mix it with other grass seeds (e.g. Kentucky blue grass) for turf and sod. Fescue is also a forage seed crop with high rates of protein for livestock.

Promotional videos of the Oregon region brand it as the “turf capital of the world.

Nowhere within these promotional videos that showcase the turf grass seeds of Oregon landscaping Wimbledon, the US Golf Opens and luxurious residential homes is “Peace Country” fescue mentioned.





**FESCUE VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

**“In Canada, virtually all creeping red fescue production is grown in the Peace Region; and it is renowned for its superior qualities of hardiness and germination ratios.”**

<b>Alberta 2017 Export Revenues – Creeping Red Fescue</b>		
	<b>Amount \$CA</b>	<b>Volume (KGM)</b>
Creeping Red	\$ 28,295,938.00	11,582,690
<b>All Fescue - Total</b>	<b>\$ 29,403,984.00</b>	<b>11,841,131</b>

Source: PREDA/ REDI Custom Request – Canada Customs – HS Level 8

**Of all the Fescue exported from Alberta 98% is Creeping Red.**

Photo: Creeping Red Fescue



There were 83 export shipments of Fescue from Alberta in the year 2017. The table below shows the exports by type, country, export point, mode of transport volume and value for 5 of these shipments (non-USA). Note all Non-USA exports were Creeping Red Fescue. These 5 shipments generated \$CA2.9 Million in export revenues for Alberta.

**100% of Fescue is trucked to local seed cleaning co-ops where is bagged, loaded into a container and then transported by Truck to the export point.**

<b>Alberta 2017 Export Revenues – Creeping Red Fescue – By Country (Non- US), Mode of Transport, Volume</b>					
<b>Fescue Type</b>	<b>Exported To</b>	<b>Export Point</b>	<b>Transport</b>	<b>Volume KGM</b>	<b>Value \$CA</b>
Creeping red fescue seeds, for sowing, o/t certified	China	Prince Rupert, BC	Water	287,958	\$ 514,419.00
Creeping red fescue seeds, for sowing, o/t certified	China	Vancouver, BC	Water	326,383	\$ 481,530.00
Creeping red fescue seeds, for sowing, certified	Germany	Montréal, QU	Water	407,000	\$ 758,581.00
Creeping red fescue seeds, for sowing, o/t certified	Japan	Vancouver, BC	Water	227,692	\$ 342,491.00
Creeping red fescue seeds, for sowing, certified	Poland	Montréal, QU	Water	561,304	\$ 880,839.00
<b>Total</b>				<b>1,810,337</b>	<b>\$ 2,977,860</b>

Source: Statistics Canada – PREDA/REDI Custom Request

Note: Certified indicates confirmation of seed type. It does not relate to organic.  
 Calvin Yoder – Forage Seed Specialist Alberta Agriculture (Spirit River, AB Office)

Alberta 2017 Export Revenues - Creeping Red Fescue – To USA – Distribution by State , Volume (CAS)			
State	Export Point	Volume (KGM)	Value \$CA
California	Abbotsford, BC	8,542	\$23,856.00
Colorado	North Portal, SK	19,051	\$43,388.00
Idaho	Coutts, AB	50,802	\$81,285.00
Idaho	Kingsgate, BC	37,875	\$69,067.00
Illinois	North Portal, SK	19,051	\$59,969.00
Illinois	Emerson, MB	212,262	\$571,988.00
Illinois	North Portal, SK	77,111	\$209,153.00
Illinois	Sprague, MB	19,051	\$57,824.00
Indiana	Emerson, MB	248,570	\$651,324.00
Kentucky	Emerson, MB	9,526	\$26,628.00
Kentucky	North Portal, SK	15,422	\$40,863.00
Maine	Stanstead, QU	9,526	\$24,096.00
Maryland	Emerson, MB	11,793	\$28,752.00
Maryland	Fort Erie, ON	19,051	\$43,166.00
Maryland	North Portal, SK	57,153	\$142,184.00
Massachusetts	Emerson, MB	303,910	\$829,762.00
Massachusetts	Fort Erie, ON	28,123	\$64,060.00
Massachusetts	Lansdowne, ON	19,051	\$40,365.00
Massachusetts	North Portal, SK	95,255	\$217,802.00
Michigan	Emerson, MB	84,369	\$216,293.00
Michigan	North Portal, SK	166,016	\$433,901.00
Michigan	South Junction, MB	38,102	\$93,655.00
Minnesota	Emerson, MB	11,000	\$37,229.00
Minnesota	Boissevain, MB	19,051	\$51,326.00
Minnesota	Emerson, MB	556,215	\$1,393,671.00
Minnesota	North Portal, SK	172,368	\$449,010.00
Missouri	Emerson, MB	18,144	\$45,374.00
Missouri	Boissevain, MB	19,051	\$45,258.00
Missouri	Emerson, MB	131,178	\$302,522.00
Missouri	North Portal, SK	153,315	\$358,343.00
Montana	Coutts, AB	4,535	\$12,946.00
Montana	Coutts, AB	194,229	\$509,288.00
N Carolina	Emerson, MB	57,153	\$155,201.00
N Carolina	North Portal, SK	19,052	\$55,294.00
N Hampshire	St-Armand, QU	19,051	\$51,818.00
Nebraska	North Portal, SK	19,958	\$54,718.00



Creeping Red Fescue

Alberta 2017 Export Revenues - Creeping Red Fescue – To USA – Distribution by State , Volume (CAS)			
State	Export Point	Volume (KGM)	Value SCA
New Jersey	Emerson, MB	26,173	\$69,900.00
New Jersey	Fort Erie, ON	103,370	\$290,885.00
New Jersey	North Portal, SK	30,980	\$81,653.00
New York	Emerson, MB	48,081	\$129,546.00
New York	Fort Erie, ON	97,502	\$250,841.00
New York	North Portal, SK	38,102	\$101,381.00
North Dakota	Emerson, MB	201,396	\$504,879.00
North Dakota	North Portal, SK	9,979	\$27,438.00
Ohio	Emerson, MB	50,802	\$139,241.00
Ohio	Fort Erie, ON	58,967	\$109,332.00
Ohio	North Portal, SK	113,036	\$277,731.00
Ohio	South Junction, MB	13,608	\$74,787.00
Oregon	Abbotsford, BC	76,872	\$207,120.00
Oregon	Pacific Highway, BC	19,958	\$58,349.00
Oregon	Abbotsford, BC	1,359,290	\$3,497,861.00
Oregon	Kingsgate, BC	138,233	\$349,549.00
Oregon	Osoyoos, BC	708,469	\$1,860,375.00
Oregon	Pacific Highway, BC	2,312,483	\$6,146,588.00
Pennsylvania	North Portal, SK	4,536	\$10,997.00
Pennsylvania	Emerson, MB	268,575	\$710,649.00
Pennsylvania	Fort Erie, ON	86,183	\$220,738.00
Pennsylvania	North Portal, SK	147,872	\$367,701.00
Tennessee	Emerson, MB	40,732	\$78,909.00
Tennessee	North Portal, SK	57,153	\$141,664.00
Vermont	St-Armand, QU	66,225	\$179,341.00
Vermont	St-Bernard, QU	32,024	\$81,470.00
Virginia	Emerson, MB	14,515	\$36,558.00
Virginia	North Portal, SK	19,345	\$49,811.00
Washington,	Kingsgate, BC	1,814	\$5,889.00
Washington,	Kingsgate, BC	46,268	\$122,084.00
Washington,	Osoyoos, BC	14,515	\$38,461.00
Wisconsin	Emerson, MB	523,407	\$1,346,751.00
Wisconsin	North Portal, SK	97,976	\$258,220.00
<b>Total</b>		<b>9,772,353</b>	<b>\$25,318,078.00</b>



**\$25,318,078**  
Sold to USA

Source: PREDA/REDI – Canada Customs – Special Request



**TIMOTHY VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

Timothy is a relatively short-lived, cool- season perennial that grows in stools or clumps and has a shallow, compact, and fibrous root system. There are approximately 1,152,000 seeds per pound.

Timothy is different from most other grasses in that 1 or occasionally 2 of the basal internodes of the stem swell into a bulb-like growth. This characteristic is often used for identification of the plant during its early stages of growth. Timothy is used mainly for hay, but also for pasture and silage. It is palatable and nutritious. It makes an excellent companion grass for alfalfa and clover since it does not compete with legumes.

<b>Alberta 2017 Export Revenues – Timothy Grass Seeds By Country, Export Point, Transport Mode, and Volume</b>				
<b>Country</b>	<b>Export Point</b>	<b>Mode</b>	<b>Volume (KGM)</b>	<b>Value \$CA</b>
Belgium	Montréal, QU	Water	75,080	\$ 153,528.00
Denmark	Montréal, QU	Water	4,005	\$ 7,946.00
Finland	Montréal, QU	Water	75,240	\$ 159,634.00
France	Montréal, QU	Water	25,000	\$ 48,510.00
Germany	Montréal, QU	Water	219,160	\$ 505,715.00
Japan	Vancouver, BC	Water	32,260	\$ 74,844.00
Latvia	Montréal, QU	Water	25,080	\$ 31,852.00
Netherlands	Montréal, QU	Water	17,950	\$ 32,450.00
Poland	Montréal, QU	Water	149,825	\$ 317,204.00
UK	Montréal, QU	Water	25,000	\$ 55,125.00
Japan	Vancouver, BC	Water	18,144	\$ 32,689.00
<b>Total</b>			<b>666,744</b>	<b>\$ 1,419,497</b>

Source: PREDA/REDI – Canada Customs – Special Request

The table above shows that there were 11 export shipments of Timothy Seeds from Alberta in the year 2017. Most of these export shipments went to Europe. The largest value for Timothy exports for Alberta is in the Hay exports. With 66 export shipments weighting in at 200K+ tonnes and a revenue value of \$CA79.6 Million sold across 14 countries in the year 2017, Timothy Hay grown in the Northwest is internationally renowned for its nutritional quality with Cattle. This recognition is in no small part due to the 65 years of export marketing, package innovation, and nutritional monitoring of one farm family in the Peace Country. The Lavoie Family of St. Isadore, AB (Northern Sunrise County).

**TIMOTHY VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

Timothy hay has a very distinctive green coloring when it is first baled  
(It almost looks like a salad roll! Mmm... I can see why the cows love it!)

Photo: Lavoie Farms, St. Isadore

1953, the Lavoie family sealed a 160-acre homestead in Northern Alberta. The family worked together to clear the land and build a new farm. Today, the Lavoie family farm is home to 400 dairy cows and multiple grain & hay operations that extend over 20,000 acres (Macay Enterprises Inc.) Establishing a farm in Northern Alberta requires dedication and innovation. In 1995, while already working for a hay exporter, Evans Lavoie knew that a new method had to be developed to ensure a consistent supply of high-grade Timothy grade to export. In response, the Lavoie family developed special machinery and new quality control processes that no other companies use – compact baling – which allows for maximum product in shipping containers while maintaining the highest level of nutritional quality.



*Timothy is your low-cost option of increasing fiber in your cow's diet.*

*Your cows will last longer with better conditioning and have higher fat content in milk.*

**ADVANTAGES****Low Potassium**

Safe for feeding baby cows, dry cows, and milking cows.

**High Palatability**

Comes from the Peace Region which is renowned for higher sugar content

When fed at a younger age increases stomach capacity for increased milk production in the future.

**Today the Lavoie family farms are operated by the sons of the senior Lavoie brothers that originally broke the ground and focused to build their expertise on Cattle, Timothy Hay and quality control exporting.**

**TIMOTHY VERY IMPORTANT CROP IN NORTHWEST ALBERTA**

Source: PREDA/REDI – Canada Customs – Special Request

<b>Alberta 2017 Exports Revenues – Timothy Hay – By Country, Export Point, Mode of Transport, and Volume</b>					
<b>Country</b>	<b>State</b>	<b>Export Point</b>	<b>Transport Mode</b>	<b>Volume (Tonnes)</b>	<b>Value \$CA</b>
China		Calgary, AB	Air	652	187,031
China		Vancouver, BC	Water	3,973	1,227,058
China		Vancouver, BC	Air	91	28,668
Dom REP		Vancouver, BC	Water	48	14,813
India		Vancouver, BC	Water	25	7,465
Ireland		Montréal, QU	Water	25	10,387
Ireland		Vancouver, BC	Water	128	38,870
Japan		Calgary, AB	Air	5,593	2,147,300
Japan		Prince Rupert, BC	Water	2,366	585,530
Japan		Vancouver, BC	Water	135,268	48,781,186
Japan		Vancouver, BC	Air	601	229,848
Malaysia		Vancouver, BC	Water	556	167,048
Netherlands		Montréal, QU	Water	681	206,213
Qatar		Vancouver, BC	Water	126	24,741
Singapore		Vancouver, BC	Water	459	130,862
South Korea		Calgary, AB	Air	527	189,515
South Korea		Edmonton, AB	Air	112	33,901
South Korea		Prince Rupert, BC	Water	5,704	1,572,160
South Korea		Vancouver, BC	Water	26,738	8,683,418
South Korea		Vancouver, BC	Air	390	129,531
Taiwan		Vancouver, BC	Water	62	21,191
Taiwan		Vancouver, BC	Air	49	24,236
Thailand		Vancouver, BC	Water	661	197,682
Thailand		Vancouver, BC	Air	58	17,266
UAE		Calgary, AB	Air	888	199,139
UAE		Vancouver, BC	Water	2,700	812,354
UK		Montréal, QU	Water	240	74,843
UK		Vancouver, BC	Water	175	55,420
USA	Washington,	Abbotsford, BC	Road	18	6,308
USA	Maine	Armstrong, QU	Road	5	2,888
USA	Arizona	Coutts, AB	Rail	14	8,050
USA	California	Coutts, AB	Road	40	12,849
USA	Florida	Coutts, AB	Road	69	39,877
USA	Nevada	Coutts, AB	Road	323	148,463
USA	Washington,	Coutts, AB	Road	19	9,384



Alberta 2017 Exports Revenues – Timothy Hay – By Country, Export Point, Mode of Transport, and Volume					
Country	State	Export Point	Transport Mode	Volume (Tonnes)	Value \$CA
USA	Wisconsin	Coutts, AB	Road	1,929	715,595
USA	Wyoming	Coutts, AB	Road	81	21,190
USA	Florida	Emerson, MB	Road	38	24,656
USA	Tennessee	Emerson, MB	Road	17	8,473
USA	Wisconsin	Emerson, MB	Road	1,221	434,477
USA	New York	Fort Erie, ON	Road	18	12,618
USA	Alabama	Fort Frances, ON	Rail	72	40,631
USA	Florida	Fort Frances, ON	Rail	575	366,176
USA	New York	Fort Frances, ON	Rail	18	11,171
USA	Wisconsin	Fort Frances, ON	Rail	8,957	2,890,760
USA	Washington,	Kingsgate, BC	Road	1,985	668,520
USA	Arkansas	North Portal, SK	Rail	18	10,870
USA	California	North Portal, SK	Rail	35	21,907
USA	Florida	North Portal, SK	Rail	12,708	7,047,511
USA	Florida	North Portal, SK	Road	68	40,897
USA	Michigan	North Portal, SK	Rail	20	9,163
USA	Montana	North Portal, SK	Rail	17	7,089
USA	New York	North Portal, SK	Rail	363	212,184
USA	New York	North Portal, SK	Road	19	13,284
USA	North Carolina	North Portal, SK	Rail	40	30,055
USA	Tennessee	North Portal, SK	Rail	57	32,375
USA	Washington,	North Portal, SK	Rail	441	213,228
USA	Wisconsin	North Portal, SK	Road	1,266	437,013
USA	Washington,	Pacific Highway, BC	Road	17	6,557
USA	Maine	Stanstead, QU	Road	13	8,242
USA	New York	St-Armand, QU	Road	6	2,973
USA	Maryland	St-Bernard, QU	Road	46	16,407
USA	New Jersey	St-Bernard, QU	Road	25	13,958
USA	New York	St-Bernard, QU	Road	269	147,161
USA	Pennsylvania	St-Bernard, QU	Road	259	166,507
USA	Arkansas	Windsor, ON	Road	6	10,730
<b>Total</b>				<b>219,988</b>	<b>\$ 79,667,873</b>

65% of all export revenues in 2017 from the sale of Timothy Hay  
comes from sales to JAPAN  
**\$CA 51,743,864.**

## HEMP EMERGING ALTERNATIVE CROP

Canadian hemp is sold as seeds for food to markets in the United States and Asia, and interest is surging for health products. That, coupled with the versatility of hemp fibre for manufacturing, has some predicting the export market could balloon from \$140 million in sales this year to \$1 billion within five years – with Alberta as a potential “hemp hub.”

Finding accurate data on hemp acres, production, and exports is challenging. Typical field crops include wheat, canola, oats and barley; which have been tracked and reported for decades. In contrast, agricultural products such as hemp fall under “other field crops” and are batched together for summary reporting. The Census of Agriculture is the only statistical program that collects data on emerging and minor agricultural products. The “other” commodities are collected by the Census program using write-in fields, which are then coded and grouped into similar product classes. Agriculture Canada has only just begun to formally report data on hemp so comparative long-term data is not available.

Canada 2016 - Other Crop Area (Acres)											
Crop / Canada Total	NL	PEI	NS	NB	Qu	On	MB	SK	AB	BC	
Fenugreek	2,809	0	0	0	0	0	0	2,809	0	0	
Spelt	15,958	0	68	0	0	3,435	7,365	1,122	2,851	818	299
Quinoa	11,868	0	0	0	0	x	352	905	9,525	1,042	x
Camelina	2,703	0	0	x	0	246	x	x	2,211	x	0
Hemp (industrial)	45,245	0	x	0	x	2,149	732	12,929	13,329	15,689	296
Hops	789	0	x	22	13	101	175	x	x	3	454
Gooseberries	42	0	1	2	2	24	8	1	x	x	1
Currants	427	5	30	10	3	142	73	5	46	62	52
Sea buckthorn	520	x	0	x	0	365	30	42	41	31	8
Kiwi	58	0	x	x	0	x	12	0	0	0	40
Haskaps and other berries	1,761	2	12	195	74	655	148	26	341	169	139
Garlic	2,207	5	6	31	17	582	976	18	18	69	485
Kale	448	1	1	20	2	19	328	16	2	4	58
Sweet potato	1,776	0	4	x	x	3	1,755	2	x	0	5
Chinese vegetables	2,356	x	0	0	x	6	1,953	x	0	1	395

Source: Statistics Canada, Census of Agriculture – Special Report Innovation and healthy living propel growth in certain other crops (March 2018)

**HEMP EMERGING ALTERNATIVE CROP**

**Hemp Products 2017 Detailed:**

There have been numerous discussions (and investments in related research) in the Northwest with regards to the potential of hemp growing in the region. Though it is challenging to get a full baseline on the productivity and land dedicated to the crop, export data, shown below, does give a glimpse of the economic activity of the hemp industry. The data presented below was received through a customized request to Statistics Canada.

Source: Statistics Canada – PREDA/REDI Custom Request

Canada – Hemp Product Exports – Volume and Value		
	Volume (KGM)	Value \$CA
2017	11,200,206	\$ 76,510,941
2016	26,913,206	\$ 132,698,210
2015	17,769,358	\$ 79,038,932
2014	3,542,027	\$ 36,349,467
2013	2,880,774	\$ 31,373,386

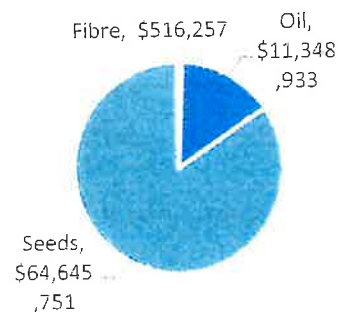
The table shows that the export revenues generated from the sale of hemp products has been significant; with a peak of \$CA 132.7Million in the year 2016.

In the year 2017 Canada Customs cleared a total of 281 export shipments of hemp products. The table below shows the province of Manitoba accounted for 74% of Canada’s export revenues generated from the sale of hemp products in the year 2017. Also, most of the export revenues generated were accounted for through the sales of hemp seeds.

Source: Statistics Canada – PREDA/REDI Custom Request

Canada – 2017 Hemp Product Exports – By Province			
Province	Volume (KGM)	Value \$CA	#Export Shipments
AB	1,372,425	\$ 3,892,951	23
BC	713,891	\$ 7,852,344	51
MB	8,174,824	\$ 56,752,009	108
ON	60,409	\$ 189,580	22
QU	239,740	\$ 3,465,323	21
SK	638,917	\$ 4,358,734	56
<b>Total</b>	<b>11,200,206</b>	<b>\$ 76,510,941</b>	<b>281</b>

Canada 2017 Export Value - Hemp Products



## HEMP EMERGING ALTERNATIVE CROP

### Hemp Products 2017 Detailed:

The table below shows Canada's 2017 hemp product export by country. Overall the largest sales go to the United States (seeds). South Korea and the Netherlands also show significant revenues generated (seeds).

<b>Canada 2017 Hemp Products Exports – By Country</b>				
Country	Fibre (\$CA)	Oil (\$CA)	Seeds (\$CA)	Total Value \$CA
Algeria			156,863	156,863
Australia (5)		41,189	218,199	259,388
Belgium (1)		3,636	118,423	122,059
Cayman Islands		44,990		44,990
Chile		3,077		3,077
China			375	375
Costa Rica			65,688	65,688
Finland			488,705	488,705
France	83,156		184,393	267,549
Germany (4)	328,661	327,095	100,026	732,121
Greece		59		59
Hong Kong	1,952		2,189	4,141
Ireland			99,000	99,000
Israel (4)		36,788		36,788
Italy		567	521,086	521,653
Japan (4)		246,504	205,202	451,706
Malaysia		14,628		14,628
Mexico			3,196	3,196
Netherlands		197,318	2,161,221	2,358,539
New Zealand (3)		167,886		167,886
Panama	244			244
Philippines	876		5,439	6,315
Poland			312,038	312,038
Singapore		216	937	1,153
Slovakia		500,200	5,451	505,651
South Africa (3)		55,746	45,975	101,721
South Korea		553,896	6,224,144	6,778,040
Spain		176	79,475	79,651
Trinidad and Tobago			2,976	2,976
United Kingdom (4)	13,969	239,126	1,630,390	1,883,485
United States (52)	87,399	8,915,836	52,014,360	61,017,595
<b>Totals</b>	<b>516,257</b>	<b>11,348,933</b>	<b>64,645,751</b>	<b>76,487,280</b>

**Pastureland - Animal and Animal Products**

In 2017 Alberta generated \$3.2 billion in export revenues from the sale of animals and animal products. Fresh beef accounted for almost a 1/3 of all export revenues generated. The table below shows Alberta's animal products exported and the percent of these sales that were sold to the US.

<b>Alberta 2017 Export Revenues – All Animal Products</b>	<b>Total \$CA</b>	<b>% US</b>
<b>Total</b>	<b>\$ 3,213,370,215</b>	<b>68%</b>
HS 0201 - Meat of Bovine Animals -- Fresh or Chilled	\$ 1,209,582,146	91%
HS 0102 - Live Bovine Animals	\$ 642,420,195	100%
HS 0203 - Meat of Swine - Fresh, Chilled or Frozen	\$ 461,017,035	31%
HS 0202 - Meat of Bovine Animals - Frozen	\$ 350,549,001	11%
HS 0206 - Edible Offal - Bovine, Swine, Sheep, Goat, Horse, Ass, Mule, Hinny - Fresh, or Frozen	\$ 213,075,000	44%
HS 051110 - Bovine Semen	\$ 60,843,402	55%
HS 0103 - Live Swine	\$ 58,894,679	100%
HS 0504 - Guts, Bladders and Stomachs of Animals (Other than Fish)	\$ 43,858,302	16%
HS 0205 - Meat of Horses, Asses, Mules or Hinnies - Fresh, Chilled or Frozen	\$ 38,517,004	0%
HS 040900 - Honey, Natural	\$ 27,150,428	78%
HS 0101 - Live Horses, Asses, Mules and Hinnies	\$ 17,145,085	31%
HS 0209 - Pig Fat, Free of Lean Meat, and Poultry Fat, Not Rendered or Otherwise Extracted, Fresh	\$ 12,237,840	2%
HS 0402 - Milk/Cream - Concentrated or in Powder	\$ 10,537,790	0%
HS 0106 - Other Live Animals Nes (Including Fishing Bait)	\$ 8,580,761	100%
HS 0207 - Meat and Edible Offal of Domestic Poultry - Fresh, Chilled or Frozen	\$ 6,791,656	1%
HS 010641 - Insects: Bees	\$ 4,975,743	100%
HS 0210 - Meat and Edible Offals of Bovine, Swine and Other - Salted, Brine, Dried or Smoked	\$ 4,519,114	51%
HS 0506 - Ossein, Bones and Horn-Cores	\$ 3,274,154	80%
HS 0208 - Meat and Edible Offal of Rabbits, Frogs and Other Animals - Fresh, Chilled or Frozen	\$ 3,056,285	87%
HS 0507 - Ivory, Whalebone, Horns, Hooves, Tortoise-Shell, Antlers, Nails, Claws, Beaks	\$ 3,045,800	14%
HS 152190 - Beeswax, Other Insect Waxes and Spermaceti	\$ 2,658,269	100%
HS 0510 - Glands, Bile and Animal Products Used To Prepare Pharmaceutical Products	\$ 945,224	2%
HS 0408 - Bird Eggs Not in Shell and Egg Yolks	\$ 438,649	100%
HS 0204 - Meat of Lamb, Sheep and Goats - Fresh, Chilled or Frozen	\$ 438,176	24%
HS 0306 - Crustaceans - Whether in Shell or Not, Live Fresh, Chilled Frozen Salted Brine; Smoked,	\$ 412,878	4%
HS 0406 - Cheese and Curd	\$ 400,214	51%
HS 0405 - Butter, Dairy Spreads and Other Fats and Oils Derived from Milk	\$ 382,597	23%
HS 0404 - Whey and Products Consisting of Natural Milk Constituents	\$ 149,268	0%
HS 0307 - Molluscs, Whether in Shell or Live, Fresh, Chilled, Frozen Dried, Salted Brine, Smoked	\$ 89,644	0%
HS 0105 - Live Poultry and Turkeys	\$ 86,942	100%
HS 0505 - Skin, Feathers and Other Parts of Birds	\$ 53,276	0%
HS 0303 - Frozen Fish (Excl Fish Fillets)	\$ 34,650	0%
HS 0302 - Fresh or Chilled Fish (Excl Fish Fillets)	\$ 20,357	100%
HS 0410 - Edible Products of Animal Origin Nes	\$ 19,348	93%
HS 0104 - Live Sheep and Goats	\$ 13,700	0%
HS 0305 - Fish (Incl. Fish Meal) - Dried, Salted, Smoked or in Brine	\$ 5,175	0%



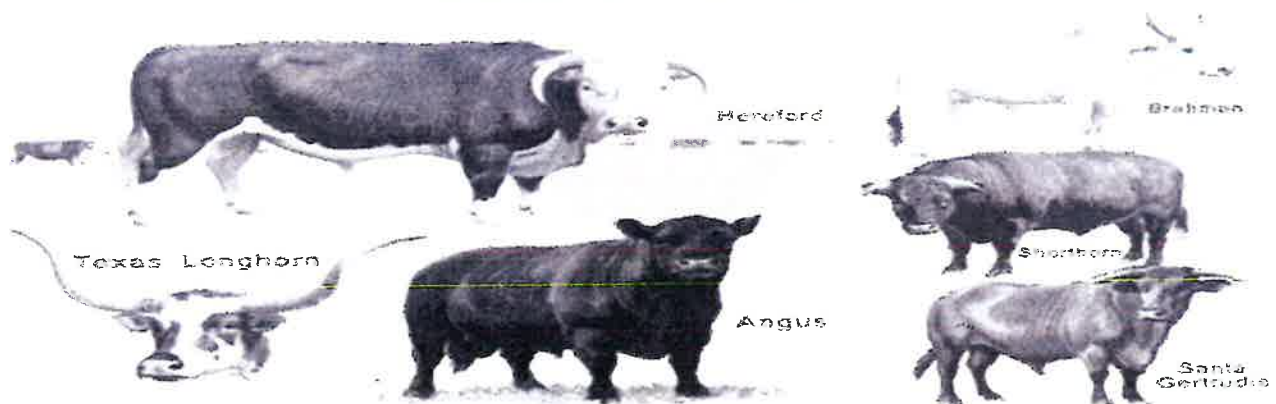
**BOVINE (Cattle) VERY IMPORTANT LIVESTOCK IN NORTHWEST ALBERTA**

Northwest Alberta counted 285,771 heads of cattle in 2016. The categories shown above represent different sections of the cattle industry that either use cattle for meat, for breeding, or for milking.

2.3A Northwest Alberta - Cattle Inventory – Headcount (2016)								
	Calves	Steers	Heifers		Cows		Bulls	Total
			Slaughter	Replacement	Beef	Dairy		
Canada	4,045,274	1,573,232	903,741	1,113,397	3,732,555	939,071	223,460	12,530,730
Alberta	1,649,706	902,839	573,834	329,339	1,576,354	80,014	94,913	5,206,999
NW-AB	94,226	25,345	10,170	24,898	122,855	1,036	7,241	285,771
N. Sunrise	1,780	142	x	430	x	x	181	5,712
Big Lakes	10,023	1,292	1,444	2,175	12,342	5	649	27,930
Lesser Slave	3,332	166	94	869	x	x	309	10,258
Clear Hills	7,059	2,997	981	2,481	12,440	42	732	26,732
N. Lights	7,481	4,445	x	2,380	x	x	701	26,552
Mackenzie	6,173	223	287	1,448	6,424	71	423	15,049
Greenview	13,782	3,401	x	3,413	x	x	961	41,121
County GP	23,582	7,987	2,330	6,594	26,487	28	1,646	68,654
Smoky River	2,153	359	146	0	x	x	124	6,264
Birch Hills	3,529	1,729	x	822	x	x	354	12,783
Spirit River	921	247	x	0	1,560	0	76	3,184
Saddle Hills	9,818	1,187	667	1,781	x	x	675	26,429
Fairview	2,054	653	447	896	x	x	180	7,482
Peace	2,539	517	331	371	x	x	230	7,621

Census of agriculture - Table: 32-10-0424-01 Cattle and Calves \*suppressed or None

**Beef Breeds**



**BOVINE (Cattle) VERY IMPORTANT LIVESTOCK IN NORTHWEST ALBERTA**

Fresh Beef! Will always garner premium prices however, the variable of time to transport can wreak havoc on such delicacies.

Recall: *“The first rule of thumb for trade is proximity. The closer you are the more likely it is there will be trade; especially if you both have something the other wants.”*

Source: “Gravity Model of Trade”- Foreign Affairs Canada

This is especially true for premium grade fresh Alberta Beef! The United States accounted for 91% of all revenues generated from the export of fresh beef.

<b>Alberta Exports – Bovine Fresh (\$CA)</b>		
	2016	2017
United States	1,083,728,609	1,100,749,722
Mexico	69,531,403	72,750,275
Japan	15,015,184	15,286,237
Netherlands	2,657,414	6,559,420
Korea, South	298,817	4,950,464
Switzerland	3,353,660	2,630,975
Chile	2,120,264	2,165,774
Taiwan	88,219	2,250,834

<b>Alberta 2017 Export Revenues HS 0201 - Meat of Bovine Animals – Fresh</b>		
California	\$ 440,392,340	
Texas	\$ 102,523,360	
Michigan	\$ 61,242,670	
Wisconsin	\$ 50,505,521	
Illinois	\$ 47,178,477	
Idaho	\$ 28,759,721	
Nebraska	\$ 27,500,346	
Ohio	\$ 27,146,616	
New York	\$ 26,383,943	
Oregon	\$ 25,160,578	
Colorado	\$ 24,658,268	
New Jersey	\$ 22,466,173	
North Carolina	\$ 20,974,709	
Georgia	\$ 20,175,926	
Washington	\$ 19,328,957	
Florida	\$ 18,877,958	
South Dakota	\$ 18,744,800	
<b>Sub-total US</b>	<b>\$ 1,100,906,840</b>	<b>91%</b>
Others	\$ 108,675,306	
Total All Countries	\$ 1,209,582,146	

The US loves Alberta Beef; especially Californians! Even Texas, the only other place branded for its quality of “steak”, imports more than \$100 Million of fresh Alberta beef. Cattle is a very important livestock to Northwest Alberta. Yet for decades efforts to have inter- provincial approved slaughter and processing facilities have been unsuccessful (let alone international grade).



**BOVINE (Cattle) VERY IMPORTANT LIVESTOCK IN NORTHWEST ALBERTA**

In 2017 there were eighty export shipments of frozen beef (Bovine). Eleven of these export shipments were delivered to the buyer using Air services. Forty-one of these export shipments were delivered using trucks (specialized reefer containers) to the United States and Mexico. Almost all these truck shipments went through the export point in Alberta at Coutts. The remaining shipments were trucked to at tidewater export points; the majority being Vancouver.

<b>Alberta Exports – Bovine Frozen (\$CA)</b>			
	2015	2016	2017
Hong Kong	58,090,196	131,635,270	130,338,844
China	234,761,043	59,049,860	72,875,287
Japan	24,266,452	41,992,082	57,518,841
US	29,320,319	21,683,496	39,940,746
S Korea	3,093,881	31,890,278	16,594,893
Taiwan	416,676	5,557,474	22,501,541
Vietnam	86,822	1,683,191	3,662,285
Philippines	4,256,579	4,190,787	1,882,143
Mexico	1,946,955	879,486	1,035,350
Cuba	3,604,048	1,768,236	1,745,214
<b>Total \$CA Top Countries</b>	<b>359,844,986</b>	<b>300,332,176</b>	<b>348,097,161</b>
% Export Revenues	99%	99%	99%

What is of interest relative to this report is the higher ratio of value to volume when comparing air delivery vs. truck delivery. Even though the air delivery volume is significantly smaller than the truck delivery; the value per KGM is significantly higher for the “air” sales. Air delivery sales are “premium sales”; this could be a niche market for the Northwest agriculture.

<b>Alberta 2017 Exports – Bovine Frozen – By Air</b>			
Destination	Export Point	Volume (KGM)	Value \$CA
Chile	Calgary	1,271	26,116
<del>China</del>	<del>Vancouver</del>	<del>20,666</del>	<del>218,018</del>
France	Calgary	86,066	913,058
Hong Kong	Vancouver	23,217	118,723
Japan	Vancouver	68,686	331,484
Switzerland	Calgary	21,012	223,161
Switzerland	Montreal	1,454	15,451
Taiwan	Vancouver	21,881	133,276
Viet Nam	Victoria	154	1,355
Viet Nam	Sidney	649	7,003
Viet Nam	Vancouver	24,150	167,555
<b>Total</b>		<b>269,206</b>	<b>\$2,155,200</b>
<b>Value per KGM = Volume / Payment Received \$8.00</b>			

Source: Statistics Canada – PREDA/REDI Custom Request

<b>Alberta 2017 Exports – Bovine Frozen by Truck</b>			
United States (39 Shipments)	Coutts, AB*	7,376,417	39,639,552
Mexico (2 Shipments)	Coutts, AB	138,443	1,035,350
<b>Total</b>		<b>7,514,860</b>	<b>\$40,674,902</b>
<b>Value per KGM = Volume / Payment Received \$5.40</b>			
* Two shipments were exported St-Bernard-de-Lacolle, OU			

**SWINE (PIGS) VERY IMPORTANT LIVESTOCK IN NORTHWEST ALBERTA**

Bacon, ham, pork-chops. Consumer level products all from the swine industry. In Canada alone there are 130 branded consumer level products using Canadian pork. The table below shows the headcount of the live swine in Canada, Alberta, and the Northwest region. Like the cattle industry, the categories shown represent different sections of the swine industry that are either used for meat or for breeding.

Northwest Alberta – Swine Inventory (Headcount)						
		Sows	Nursing		Grower and	
	Boars	and Gilts	Sows	Weaners	Finishers	Total
Canada	19,119	1,210,031	1,903,325	3,341,358	7,617,670	14,091,503
Alberta	4,941	121,562	211,333	312,555	811,856	1,462,247
NW-AB	289	8,234	13,888	26,989	62,446	111,846
N. Sunrise	x	x	0	0	x	x
Big Lakes	13	10	x	x	44	76
Lesser Slave	x	x	x	x	x	x
Clear Hills	23	83	39	38	264	447
N. Lights	10	43	57	24	18	152
Mackenzie	33	119	171	254	741	1,318
Greenview	10	25	32	81	42	190
County GP	87	x	2,116	x	x	x
Smoky River	x	x	x	x	x	x
Birch Hills	66	1,355	2,200	3,357	9,851	16,829
Spirit River	x	x	0	x	0	16
Saddle Hills	9	36	50	x	26	x
Fairview	3	16	x	x	x	x
Peace	10	21	x	x	29	x
Census of Agriculture Table: 32-10-0426-01 * suppressed OR none						

Pig farm terminology					
Term	Definition	Term	Definition	Term	Definition
Abattoir	Another word for slaughterhouse.	Feeder pigs	Young pigs around 6 – 10 weeks old. Often produced by one farm then purchased and finished on another farm.	Market Hog	A pig that weighs around 280 pounds. It is approximately 6 months old and was raised to for slaughter
Barrow	Male pig castrated before sexual maturity.	Finishing	The process of feeding a pig so that it reaches market weight.	Sow	A female pig that has given birth to at least one litter of piglets.
Boar	Male pig.	Gilt	A young female pig that has not produced a litter of piglets.	Swine	General term for all pigs.
Farrow	To give birth to piglets.	Grower pig	A pig that weighs between 40 and 220 pounds.	Weaner pig	A pig that has been recently weaned from its mother.



**SWINE (Pigs) VERY IMPORTANT LIVESTOCK IN NORTHWEST ALBERTA**

The volume of pork products exported in Canada has steadily increased; especially in the last 2 decades. As shown in the table Quebec is by far the largest exporter of swine products.

Source: Industry Canada – Trade Data



Canada Export Swine - fresh, chilled or frozen (\$CA) HS 0203	
Quebec	1,407,904,889
Manitoba	879,651,889
Alberta	461,017,035
Ontario	460,717,549
British Columbia	100,976,389
Saskatchewan	3,774,639
New Brunswick	370,034
Nova Scotia	187,949
Nunavut	103,611
Prince Edward Island	90,138



Source: Canadian Pork Council

The largest export markets for Alberta Fresh Swine is Japan and then the US. The same is true of frozen swine products however at significantly less revenues.

Alberta Export of Swine – Fresh (CA\$)			
	2015	2016	2017
Japan	167,669,270	185,511,563	184,432,439
United States	113,246,744	112,239,552	122,672,557
Korea, South	24,286,134	28,100,439	31,790,852
Mexico	6,269,202	13,003,667	13,726,230



Alberta Pork Producers Development Corporation (Alberta Pork) is a non-profit organization representing the province’s registered hog producers before government, industry partners, and media.

Source: Industry Canada – Trade Data

Alberta Export of Swine – Frozen (CA\$)			
	2015	2016	2017
Japan	27,717,533	23,523,144	25,558,687
United States	19,266,553	18,463,459	19,613,202
Korea, South	18,911,011	15,287,255	13,211,129
New Zealand	8,096,548	8,787,098	9,231,340
China	9,303,450	10,689,386	11,480,364
Philippines	6,715,210	8,558,088	9,014,756
Taiwan	8,985,320	3,329,530	5,096,918
Australia	20,424,959	13,385,782	6,911,974
Mexico	2,460,777	1,543,224	2,145,815
Hong Kong	573,151	1,698,580	2,019,405



**SWINE (Pigs) VERY IMPORTANT LIVESTOCK IN NORTHWEST ALBERTA**

**Transporting Pork (Swine) Products:**

In 2017 there were 186 shipments of pork products exported from Alberta (113 shipments were of fresh products and 73 shipments were of frozen products). Half of all of Alberta’s pork product shipments (93) went to the United States and they were all exported by road transport; representing 37,781,240 KGM of pork product at a value of \$142 Million in export revenues for Alberta.

<b>Alberta 2017 Pork Exports – US (\$CA) HS 0203 Fresh &amp; Frozen Swine Products</b>	
California	85,919,908
Michigan	22,338,813
Iowa	12,741,862
Illinois	6,874,747
South Dakota	4,686,699
Wisconsin	2,804,395
Washington	1,693,518
Oregon	777,665
Colorado	662,033
Ohio	616,553
Mississippi	414,846
Utah	351,476
New Jersey	290,418
Rhode Island	268,890
Delaware	234,213
Nevada	203,143
Puerto Rico	198,392
Montana	195,285
Missouri	191,418
Nebraska	176,875
North Dakota	156,708
Kansas	108,333
Minnesota	107,850
New York	91,578
Virginia	63,441
North Carolina	56,878
Arkansas	33,438
Pennsylvania	22,369
Texas	4,015
<b>US Total</b>	<b>\$142,285,759</b>
Other Countries	318,731,276
<b>Total All Countries</b>	<b>\$461,017,035</b>

Source: Statistics Canada – PREDA/REDI Custom Request

**Transport of Pork Products to US**



**100% Truck**

**Transport of Pork Products – Other Countries  
90 Export Shipments**

**Air 31 Export Shipments = 34%**



**Truck 7 Export Shipments (Mexico) = 8%**

**Ship 52 Export Shipments = 58%**



**POULTRY VERY IMPORTANT IN NORTHWEST ALBERTA**

On a global scale, poultry is the most ecologically sustainable and economical sources of protein. Unlike beef and pork, the consumption of poultry does not get negatively impacted by religions or climate change activists. The simplicity of poultry is one of its greatest advantages. In developing countries poultry can live within the family radius with very little land and feed expenses. Also, the whole animal is a meal on the table with no need for high-end slaughterhouses, specialty cuts and/or packaging. Poultry also provides eggs as a “recurring” source of protein. Because of the simplicity of poultry breeding, egg production, and “ready for the oven” whole animal characteristics, there is not a lot (monetary value) of international trade of poultry raw products (or live animals). Industrial level production of eggs and poultry meat tends to stay within a country.

	Hens Layers Only	Layer and Breeder	Broilers and Roasters	Turkeys	Other	Total
Canada	35,988,028	6,629,416	102,902,122	8,423,900	3,017,373	145,519,566
Alberta	3,306,652	650,582	10,168,167	768,529	170,757	14,125,401
<b>NW-AB</b>	<b>170,500</b>	<b>1,519</b>	<b>123,880</b>	<b>64,794</b>	<b>7,906</b>	<b>295,899</b>
N. Sunrise	103	x	x	x	102	277
Big Lakes	1,171	107	360	80	174	1,638
Lesser Slave	463	x	x	x	x	499
Clear Hills	1,476	135	1,786	135	115	3,397
N. Lights	1,259	97	785	95	x	2,141
Mackenzie	5,622	443	7,261	509	115	13,326
Greenview	5,126	17	54,771	x	746	59,914
County GP	16,786	348	1,977	x	2,180	19,111
Smoky River	0	x	311	x	x	x
Birch Hills	0	x	x	x	3,501	x
Spirit River	306	30	x	x	7	x
Saddle Hills	1,099	37	702	79	x	1,838
Fairview	334	0	x	155	21	x
Peace	163	x	x	0	x	x



**Highlight**

Found in the coolers of 24 communities in 40+ retail stores, the demand for Ridge Valley poultry products continues to exceed the supply - now 10 times the size of the original farm 40 decades ago. Ridge Valley is in the MD of Greenview.

**LIVE ANIMALS VERY IMPORTANT IN NORTHWEST ALBERTA**

Northwest Alberta has a small but varied number of other livestock. As shown in the table below, horses, goats, sheep, rabbits, etc. . make up the variety of animals supported on the Northwest pasture lands. These livestock may be raised and used for meat, fur/wool/leather products, and/or recreational tourism. Collectively they represent almost 50,000 animals that require feed, water, land access, and veterinary services; hence they contribute a significant economic factor overall to the Northwest agriculture industry.

The largest “Other” livestock in the Northwest is Bison at 15K+ headcount in 2016; more than 1/3 of this headcount is in the County of Grande Prairie. Sheep and horses account for most of the remaining “Other” livestock in the Northwest region.

<b>Northwest Alberta Other Livestock – Headcount (2016)</b>								
Headcount	Horses	Goats	Laamas/ Alpaca	Rabbits	Bison	Elk	Sheep	Total
Canada	291,561	230,034	20,927	172,489	119,314	22,058	1,054,260	1,910,643
Alberta	108,702	27,955	5,807	4,917	54,907	11,904	195,511	409,703
<b>NW-AB</b>	<b>11,490</b>	<b>2,696</b>	<b>687</b>	<b>954</b>	<b>15,885</b>	<b>3,198</b>	<b>12,667</b>	<b>47,577</b>
N. Sunrise	194	x	11	x	2,017	0	x	2,222
Big Lakes	744	147	x	x	211	x	1,271	2,373
Lesser Slave	237	x	x	x	446	x	x	683
Clear Hills	1,424	358	52	72	560	146	874	3,486
N. Lights	961	458	44	29	1,442	666	1,033	4,633
Mackenzie	717	x	26	110	114	x	1,011	1,978
Greenview	1,488	425	91	344	4,158	353	1,447	8,306
County GP	3,518	501	231	230	5,953	887	2,624	13,944
Smoky River	249	0	x	x	x	x	x	249
Birch Hills	300	x	16	x	x	0	x	316
Spirit River	266	x	x	x	0	x	x	266
Saddle Hills	943	226	104	59	678	x	884	2,894
Fairview	273	140	x	4	x	x	811	1,228
Peace	176	15	x	20	128	0	481	820

Source: Census of Agriculture

**LIVE ANIMALS VERY IMPORTANT IN NORTHWEST ALBERTA**

Though it may be a relatively small number of headcount for “Other” livestock in the Northwest, Alberta does generate a significant amount of export revenues from the sale of live animals. The summary tables below show the live animals exported - by type of animal and by country.

<b>HS 0101 - Live Horses, Asses, Mules and Hinnies</b>	<b>\$ 17,145,085</b>	
Japan	\$ 11,639,959	
United States	\$ 5,244,282	→ California 25%
Belgium	\$ 121,500	
Netherlands	\$ 29,500	
France	\$ 28,000	
Luxembourg	\$ 27,500	
Germany	\$ 22,835	
Austria	\$ 15,854	
Switzerland	\$ 15,500	
Cuba	\$ 155	
<b>HS 0102 - Live Bovine Animals</b>	<b>\$ 642,420,195</b>	
United States	\$ 641,257,788	→ Washington 70%
Korea, South	\$ 620,292	
Mexico	\$ 486,915	
United Kingdom	\$ 55,200	
<b>HS 0103 - Live Swine</b>	<b>\$ 58,894,679</b>	
United States	\$ 58,888,505	→ Oregon / Iowa 55%
Romania	\$ 6,174	
<b>HS 0104 - Live Sheep and Goats</b>	<b>\$ 13,700</b>	
Israel	\$ 13,700	
<b>HS 0105 - Live Poultry and Turkeys</b>	<b>\$ 86,942</b>	
United States	\$ 86,942	→ Montana 75%
<b>Total All Countries - All Live Animals</b>	<b>\$ 718,560,601</b>	

Source: Industry Canada – Trade Data

**HONEY & BEES VERY IMPORTANT IN NORTHWEST ALBERTA**

Alberta 2017 Export Revenues Natural Honey		
United States	\$ 21,154,470	78%
Japan	\$ 5,823,940	
China	\$ 136,200	
Hong Kong	\$ 35,818	
<b>Total All Countries</b>	<b>\$ 27,150,428</b>	
Alberta 2017 Export Revenues -US Natural Honey By Destination State		
California	\$ 4,023,631	
Pennsylvania	\$ 2,942,978	
Illinois	\$ 2,404,527	
Kansas	\$ 1,901,897	
Michigan	\$ 1,542,581	
Ohio	\$ 1,105,544	
Oregon	\$ 956,251	
Georgia	\$ 845,792	
Virginia	\$ 793,721	
Texas	\$ 766,890	
New Jersey	\$ 742,173	
Minnesota	\$ 417,717	
Connecticut	\$ 413,076	
Arizona	\$ 388,514	
Missouri	\$ 379,494	
Utah	\$ 354,225	
New York	\$ 314,453	
North Carolina	\$ 229,843	
Indiana	\$ 199,414	
Nevada	\$ 167,046	
Idaho	\$ 74,818	
New Hampshire	\$ 72,509	
Iowa	\$ 70,799	
Wisconsin	\$ 46,577	
<b>Sub-total US</b>	<b>\$ 21,154,470</b>	

In 2017, Canada exported \$60.8 Million worth of honey into the US. Alberta’s honey exports were worth \$27.2 million with 78% of the product being exported to the United States.

Sales Description: “About half of the honey sold in the US is through retail channels, with the rest being sold in bulk or for use in the foodservice industry. Organic honey continues to drive growth. Consumers buy most of their honey through grocery stores versus other formats. Liquid honey continues dominance of the honey category. Honey sold in glass jars and bottles outperforms bear, jugs and tubs - 12 oz. seems to be the most popular size.”

Source: Alberta Agriculture

Source: Industry Canada – Trade data

Alberta 2017 Export Revenues Bees By Destination State		
California	\$ 2,711,380	
Washington	\$ 743,254	
Idaho	\$ 580,198	
Oregon	\$ 363,014	
Montana	\$ 234,855	
Utah	\$ 201,520	
Wyoming	\$ 141,522	
<b>Sub-total US</b>	<b>\$ 4,975,743</b>	<b>100%</b>
Total All Countries	\$ 4,975,743	

What’s with exporting Alberta Bees to California? The humble honeybee plays an essential role in providing the fresh fruits, vegetables, and nuts we enjoy in such abundance.

In fact, bees pollinate around 70 % of the world’s crops. But there’s one food that requires far more bees to produce than any other – almonds. In the United States, production is concentrated in California, almonds being that state’s third leading agricultural product and its top agricultural export. California produces 80% of the world’s almonds and 100% of the U.S. commercial supply. The pollination of California's almonds is the largest annual managed pollination event in the world, with 1.4 million hives from the US and imported bees trucked into the almond groves. Researchers have developed a new line of self-pollinating almond trees which possess quality skin color, flavor, and oil content, in the attempt to reduce almond growers' dependency on insect pollination.



**HONEY & BEES VERY IMPORTANT IN NORTHWEST ALBERTA****Transporting Honey**

In 2017 Alberta exported 53 shipments of natural honey representing a total volume of 6,371,757 KGM at a value of \$CA 27,150,428 in export revenues. Of these 53 export shipments, 49 went to United States. The table below shows the volume of natural honey exports by country, the amount of export revenues generated and the mode of transportation.

Source: Statistics Canada – PREDA/REDI Custom Request

Alberta 2017 Export Shipments of Honey – Volume, Transport Mode, and Value						
Country of Destination	US State of Destination	Canadian Clearance	Port of Exit	Transport	Quantity (KGM)	Value \$CA
China		British Columbia	Vancouver	Road/Water	23,124	136,200
Hong Kong		Alberta	Calgary	Road/Air	616	3,389
Hong Kong		British Columbia	Vancouver	Road/Water	4,776	32,429
Japan		British Columbia	Vancouver	Road/Water	1,442,272	5,823,940
US	Arizona	Alberta	Coutts	Road	75,776	360,955
US	Arizona	British Columbia	Kingsgate	Road	7,493	27,559
US	California	Alberta	Coutts	Road	787,850	3,552,861
US	California	British Columbia	Abbotsford-Huntington	Road	21,977	63,797
US	California	British Columbia	Kingsgate	Road	18,289	114,031
US	California	British Columbia	Pacific Highway	Road	71,205	292,942
US	Connecticut	Alberta	Coutts	Road	37,471	151,153
US	Connecticut	British Columbia	Abbotsford-Huntington	Road	18,869	103,220
US	Connecticut	British Columbia	Pacific Highway	Road	18,870	102,663
US	Connecticut	Ontario	Fort Erie	Road	18,146	56,040
US	Georgia	Saskatchewan	North Portal	Road	254,761	845,792
US	Idaho	Alberta	Coutts	Road	19,069	74,818
US	Illinois	Alberta	Coutts	Road	59,248	177,854
US	Illinois	Manitoba	Emerson	Road	278,471	1,472,377
US	Illinois	Saskatchewan	North Portal	Road	160,040	754,296
US	Indiana	Manitoba	Emerson	Road	56,357	199,414
US	Iowa	Manitoba	Emerson	Road	18,579	70,799
US	Kansas	Alberta	Coutts	Road	55,448	313,100
US	Kansas	Manitoba	Emerson	Road	278,591	909,183
US	Kansas	Saskatchewan	North Portal	Road	130,607	679,614
US	Michigan	Manitoba	Emerson	Road	316,976	1,224,665
US	Michigan	Saskatchewan	North Portal	Road	96,455	317,916
US	Minnesota	Manitoba	Emerson	Road	75,476	417,717
US	Missouri	Manitoba	Emerson	Road	74,871	297,587
US	Missouri	Saskatchewan	North Portal	Road	18,870	81,907

Alberta 2017 Export Shipments of Honey – Volume, Transport Mode, and Value						
Country of Destination	US State of Destination	Canadian Clearance	Port of Exit	Transport	Quantity (KGM)	Value \$CA
US	Nevada	Alberta	Coutts	Road	11,886	167,046
US	N Hampshire	Quebec	Stanstead	Road	19,160	72,509
US	New Jersey	Ontario	Fort Erie	Road	132,461	734,661
US	New Jersey	Saskatchewan	North Portal	Road	360	7,512
US	New York	Ontario	Fort Erie	Road	37,449	208,488
US	New York	Saskatchewan	North Portal	Road	18,579	105,965
US	North Carolina	Manitoba	Emerson	Road	56,203	229,843
US	Ohio	Manitoba	Emerson	Road	336,685	1,045,845
US	Ohio	Saskatchewan	North Portal	Road	16,161	59,699
US	Oregon	British Columbia	Abbotsford-Huntington	Road	19,160	102,295
US	Oregon	British Columbia	Kingsgate	Road	58,423	329,653
US	Oregon	British Columbia	Pacific Highway	Road	96,743	524,303
US	Pennsylvania	British Columbia	Pacific Highway	Road	7,961	44,639
US	Pennsylvania	Manitoba	Emerson	Road	225,906	933,363
US	Pennsylvania	Ontario	Fort Erie	Road	353,340	1,612,585
US	Pennsylvania	Ontario	Lansdowne	Road	18,870	105,623
US	Pennsylvania	Saskatchewan	North Portal	Road	56,580	246,768
US	Texas	Alberta	Coutts	Road	30,787	243,826
US	Texas	Saskatchewan	North Portal	Road	108,358	523,064
US	Utah	Alberta	Coutts	Road	93,790	354,225
US	Virginia	Alberta	Coutts	Road	18,880	53,315
US	Virginia	Manitoba	Emerson	Road	130,492	473,482
US	Virginia	Ontario	Fort Erie	Road	72,714	266,924
US	Wisconsin	Saskatchewan	North Portal	Road	10,256	46,577
<b>Totals – Volume and Export Revenues</b>					<b>6,371,757</b>	<b>\$27,150,428</b>

**Current Issues:** Canadian honey producers want the federal government to increase and improve the testing of honey to ensure it is not being diluted with other sweeteners. They believe producers, particularly in Asia, are adulterating honey and so, can sell more cheaply. That, they say, has led to a drop-in price which is hurting legitimate producers. "Adulterated honey is a world-wide problem," says Rod Scarlett, executive director of the Canadian Honey Council. "In fact, it's been claimed that honey is the third largest food fraud item traded in the world behind olive oil and some spices.

Source: Radio Canada International

## Section 2 - Closing Comments

Agriculture is a diverse industry. From cropland to pastureland the variety of products grown and bred is impressive. Also, the diversity extends to the number of countries that import Canada's agriculture products. Though Northwest Alberta only represents 3% of all of Canada's farmland, over the decades the region has become internationally known for its superior quality.

This report is a summative baseline for identifying the agriculture commodities across the Northwest, the amount produced, linking this production to provincial exports and identifying, when possible, the mode of transport used to export. The sources used for the data presented within this report were numerous (noted through-out the report). From local grain elevator data, to provincial & federal databases, and the occasional access to global portals. Complementing our data collection was a keen eye on the ever-changing food-industry trends and global politics.

The principle crops and livestock grown and bred in the Northwest have weathered generations of tried and true global demand. New crops and new animals may occasionally be entertained across the decades, but wheat, canola, alfalfa, fescue, and cattle are dependable. They also afford the Northwest the opportunity to branch out to alternatives while keeping the Peace Country agriculture industry on Canada's map.

Through-out the process of collecting the data for this report, sometimes a "jewel opportunity" would emerge. For example, looking at US trade data in reverse (i.e. what they import as opposed to what we export) it was identified that California imports more alfalfa seed from Australia than it does from Canada? Why? Does it have anything to do with a trade-agreement designed by politicians? Is it better than ours? Maybe it's cheaper?

The US imports almost all of Alberta's fescue at a value of \$29 Million. Almost half of these imports go to Oregon. Why? Because Oregon has branded itself as the turf-grass capital of the world. Promotional videos from the region showcase the pristine turfs of Wimbledon, the US Golf Opens, majestic residential landscaping – all grown by the turf-grass seeds from Oregon! And sadly, the superior quality of our fescue (especially creeping red which the Peace Country is renowned for) from the Northwest gets lost amid someone else's branding.

The US paid \$1.2 Billion to import fresh Alberta Beef. Ironically Texas represented \$1.1 Million of this purchase. Even more amazing is California! The hipster, all vegetarian, environmentalist crazed of the “globe”; represented \$440 Million! From an opportunity perspective – who are these beef loving diners and what restaurants are serving this high-premium delicacy? Is our region identified on these fine-dining menus?

Speaking of California, that State purchased \$US 20,293,128 worth of field peas 2017. The current craze over meat-alternatives plant-based proteins has skyrocketed the demand for peas in California. Why? “Beyond Meat” is headquartered in California! Also known as the A&W burger. Launched across Canada at more than 900 stores, A&W is their biggest customer. This tech-food giant makes the pea-protein-meat-patties-and-ships-them-up-to-Canada.

Japan is a lucrative market. It appears that there are niche markets there that “only the best will do!” Top dollars for certified organic oats, fresh pork, and beef. And transportation costs beguiled! Japan is the most frequent user of Air Cargo to get its “highest quality imports” to its high-end end-users.

Overall though, almost 89% of everything Alberta export goes to the United States. They are our biggest buyer. The labyrinth of roads, airports, pipelines, and rail-ways that run from north-south has taken 100 years to build. On-again, off again trade agreements, tariffs and political agendas have either positively or negatively impacted our trade relationship with the United States in any given decade, but don’t forget:

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*“The first rule of thumb for trade is proximity.  
The closer you are the more likely it is there will be trade;  
especially if you both have something the other wants.”*

Source: “Gravity Model of Trade”- Foreign Affairs Canada

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For most of our exports proximity is a blessing. For some it is a curse. How proximity impacts the overall prosperity of Northwest Alberta, and our ability to get our commodities to global markets, is what we need to keep an eye-on.





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