

2016 Agriculture in Alberta Education Program



ALBERTA TEACHERS GREW IDEAS TO SUPPORT AGRICULTURE IN THE CLASSROOM

May 26 - 28, 2016 Calgary - Lethbridge

Inside Education developed the 2016 Agriculture in Alberta Education Program for teachers to explore what agriculture means for Alberta, Albertans and the classroom. The program explored the agricultural sector as a key component of sustainable natural resource development in Alberta. We examined how population growth, resulting in a growing demand for food, with limited land and water resources requires thoughtful decision-making, careful planning, technology & innovation and a strong stewardship ethic.

Inside Education has covered agricultural topics as part of previous programs, however the 2016 Agriculture in Alberta Program was the first teacher professional development program focused entirely on the topic. Building upon 30 years of experience designing experiential education programs using a multiple perspectives approach, Inside Education endeavoured to provide teachers with a comprehensive overview of agriculture in Alberta through speaker sessions, tours and workshops.

We are excited to share the highlights of this incredible program, the

overwhelmingly positive feedback, expected classroom impact and the future of our inaugural agriculture teacher program through this summary report.



THE PROGRAM

Through this dynamic program 26 teachers from across Alberta:

- **CONNECTED** with the people, places, and perspectives that give insight into Alberta's agriculture industry
- **DISCOVERED** how industrial agriculture operations actually work on tours of crop and livestock farms
- **PARTICIPATED** in a unique professional development opportunity that modelled a hands-on, experiential and inquiry-based approach to learning
- **EXPLORED** agricultural innovation through on-site demonstrations and research tours
- **CREATED** lasting networks with like-minded educators from across the province

Working with agricultural experts Inside Education developed a unique experience that exposed teachers to on-the-ground operations and innovations in southern Alberta. From touring a feedlot to an internationally recognized agricultural research centre we created a one-of-a-kind education event that inspired conversations, ideas and classroom connections.

THURSDAY MAY 26

Agriculture 101 & Sustainable Agriculture; Journey 2050

Feedlot tour with Chinook Feeders

Waldron Grazing Cooperative tour & Nature Conservancy of Canada

Ranch experience at Sierra West Cabins

FRIDAY MAY 27

The role of irrigation in Southern Alberta

Crops & biodiesel tour at the Perry Farms

Agriculture Futures - Research & Innovation tours - Aquaculture, Lethbridge Research Centre & Irrigation Technology Centre

Permaculture & urban farm tour

SATURDAY MAY 28

Education Workshop featuring the Oldman Watershed Council, Alberta Agriculture, Nutrients for Life, Agriculture for Life and Inside Education

Full Program in
Appendix

THE PARTICIPANTS

100% of survey respondents agree that the program was a a good networking opportunity and a high quality professional development opportunity.



Aquaculture tour at Lethbridge College



Farming energy - Learning about biodiesel at Perry Farms



Meeting the livestock at Chinook Feeders



Exploring irrigation canals with the Alberta Irrigation Projects Association the Raymond Irrigation District

The 2016 Agriculture in Alberta Program attracted many high quality applications from which Inside Education invited 26 highly engaged teachers with varying level of experience incorporating agricultural topics into the classroom. As this was the first program of its kind offered by Inside Education, we can only expect that demand will grow as the success of the program is shared through education networks.

One of the goals of this Inside Education professional development program was to create a network of like-minded

agriculture education practitioners working within the Alberta school system. The survey results suggest that the opportunity to discuss classroom connections with colleagues from across the province was a highly valuable component of the program and this network will go a long way towards supporting program participants.

26 Participants from 22 different K-12 schools representing rural and urban communities

- **Allison Mangat**, Woodman School, Calgary
- **Bill Van Der Weide**, Calvin Christian School, Coalhurst
- **Brian Giesbrecht**, Youngstown School, Youngstown
- **Caroline Nixon**, Alberta Education, Government of Alberta
- **Cassie Mucciarone**, St. Mary's School, Taber
- **Cathy Price**, Dr. Elliott School, Linden
- **Christopher Rigby**, Dr. Morris Gibson School, Okotoks
- **Cindy Sanford-Hoy**, Barrhead Elementary School, Barrhead
- **Corrine Webb**, Symons Valley School, Calgary
- **Erin Lyons**, Golden Hills School Division, Strathmore
- **James Hobbs**, Symons Valley School, Calgary
- **Jane Rempel**, Dunluce School, Edmonton
- **Jessica Lafrance**, Ecole McTavish Public School, Fort McMurray
- **Kalli Lirette**, Student Teacher, University of Alberta
- **Karen Carle**, Alberta Agriculture and Forestry, Government of Alberta
- **Kent Lewarne**, Nutrients For Life, Manitoba
- **Kevin Van Lagen**, Altario School, Altario
- **Kira Lawrence**, St. Mary's School, Taber
- **Leah Middleton**, Woodman School, Calgary
- **Maxine Hildebrandt**, Mother Earth's Children's Charter School, Stony Plain
- **Mike Tyler**, Vincent Massey School, Calgary
- **Neil Korotash**, Morinville Community School, Morinville
- **Sharon Fisher**, Dunluce School, Edmonton
- **Steven Schultz**, Lacombe Composite High School, Lacombe
- **Vincent Artymko**, St. Theresa Catholic Middle School, Sherwood Park
- **Wun Yeung**, Sir Wilfred Laurier School, Calgary

Table 1: Level of understanding about agricultural topics before and after the program

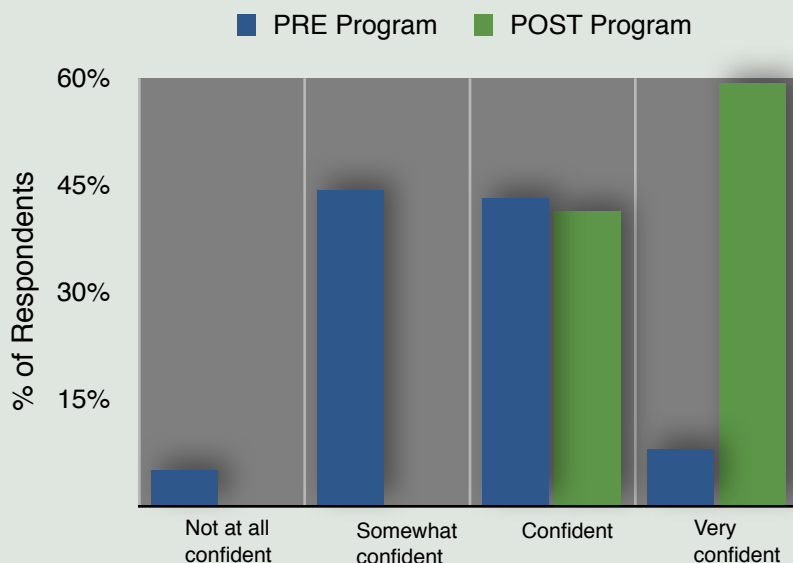
	I have more questions/ never considered this before		I understand the basics		I have a comprehensive understanding	
	PRE	POST	PRE	POST	PRE	POST
How food is grown	5%	12%	77%	35%	18%	53%
How ag. sector manages environmental impacts	37%	12%	59%	35%	5%	53%
The types of careers available in agriculture	18%	18%	73%	35%	9%	47%
Agricultural technologies and innovations	41%	18%	55%	35%	5%	47%

PROGRAM IMPACT

The 2016 Agriculture in Alberta program aimed to raise awareness and understanding about agriculture in Alberta. We asked the participants to rate their level of understanding of agriculture related topics before and after the program; the results show that we enabled teachers to go beyond the basics bringing new information and ideas that were not previously considered. (table 1)

Through a greater understanding of agricultural topics comes increased confidence (chart 1) to bring these important topics to the classroom. Inside Education believes that through developing understanding and confidence, Alberta teachers are better equipped to develop meaningful agriculture curriculum for their students.

Chart 1: How confident are you in bringing current and Alberta relevant material to your students about agriculture and related topics?



“Inside Education has had the single most powerful impact on my practice. Every day, I apply learning from tours to prepare my students to take their place as citizens in a global economy.”

Corinne Webb, Symons Valley School, Calgary

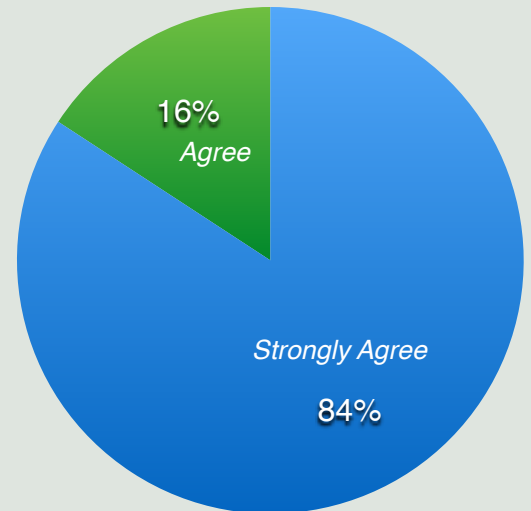


Learning about root structure and nitrogen fixation at the Perry Potato Farm

Classroom Connections

The impacts of the 2016 Agriculture in Alberta will extend far beyond the teachers themselves as they begin to incorporate the experience into their classroom curriculums. Professional development experiences such as the 2016 Agriculture in Alberta program go a long way to supporting teachers (graph 1). We know though our survey results that each participating teacher will share the program information with an average of 100 students each year - indicating an **estimated reach of 2600 students!**

Graph 1: This program has enhanced my teaching and will help me to provide informative, accurate, and high-quality learning experiences for my



A sample of the ways in which participants have/will apply the information and resources from the program:

“I made some lessons on my iPad during the tour which I will show my students in class and for next year I would like to start a long term program like a community garden.” *Melanie Leclair, Dr. Brousseau, Bonnyville*

“I am very interested in building a CTF Agriculture program. I have new resources and experiences that I can use to bring Alberta's agriculture industry into the classroom in the next school year” *Kalli Lirette, student teacher, Edmonton*

“I will INSPIRE KIDS with the ENDLESS opportunities right in our backyard for learning about and being involved in Agriculture. I can't wait to show them pictures and talk about everything I learned and all of the opportunities we are going to line up for them for next year!” *Kira Lawrence, St. Mary's School, Taber*

“I will teach my students how to become more scientifically literate, and to think critically about agricultural sustainability. We will consider multiple views of a topic (i.e. genetically modified foods, use of herbicides/ pesticides, use of antibiotics in livestock). I will also introduce my students to the topic of aquaculture.” *Maxine Hilderbrant, Mother Earth's Childrens Charter School, Stony Plain*

PROGRAM PARTNERS

Education opportunities like this would not be possible without the generous support of program partners. We would like to extend our gratitude to **Alberta Agriculture and Forestry** and **Agriculture for Life** for their commitment to high quality, meaningful teacher professional development. Many thanks to in-kind support provided by all of the expert guests, speakers and tour hosts who dedicated their time and enthusiasm to the program.

Alberta

Ag for Life

**Table 2: In my opinion the 2016 Agriculture in Alberta Program was:
(% of survey respondents)**

	Strongly Disagree	Disagree	Agree	Strongly Agree
Worthwhile	-	-	6%	94%
Enjoyable	-	-	12%	88%
Relevant to my teaching	-	-	6%	94%
Inspiring	-	-	12%	88%
High quality professional development	-	-	-	100%

Futures

Inside Education is thrilled by the outcomes of the 2016 Agriculture in Alberta Teacher Professional Development Program and we received an overwhelmingly positive response from participants (Table 2). We are currently working on complementary student programs and teaching resources to embed agriculture as a foundational topic in Inside Education's full suite of programs. We expect demand for agriculture education to grow as teachers share their knowledge, ideas and experience with their colleagues from across Alberta and we are committed to developing high quality learning opportunities to support agriculture education in Alberta. Inside Education recognizes that agriculture is an important area of study for today's students; key to creating a generation of informed stewards and decision makers.



Contact

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Appendix

Agriculture in Alberta Education Program Overview May 26-28, 2016 Calgary - Lethbridge

Develop an understanding about Agriculture in Alberta to bring current, relevant and meaningful context to the classroom and inspire the next generation of stewards by:

- *providing an overview of current and best practices agriculture - including both crops & livestock - with an emphasis on sustainable agriculture and innovation*
- *on-the-ground experiences and opportunity to ask questions directly to experts in the agricultural sector*
- *fostering connections between teachers and sector stakeholders*
- *profile current teaching resources; identify gaps where further support is needed*

Thursday May 26 - Agriculture Overview and Livestock Focus

Program Registration 9:30-10am

Location: Ralph Klein Park, Stickleback Room

10:00 am

Welcome and Introduction

We will introduce you to Inside Education, the other participants from across Alberta and the program itself as we prepare for our agricultural journey.

The Inside Education Team

An Overview of Agriculture in Alberta

Speaking to the significance of agriculture in our province, Dean Dyck will highlight the past, present and future of the agricultural sector while highlighting the key topics of sustainability and innovations that will frame our discussions throughout the program.

Dean Dyck, Alberta Agriculture

Agriculture Education & Journey 2050

The world-class education programs by the Calgary Stampede reach thousands of students every year. The education programming coordinator, Robyn will speak to us about the relevance of agriculture education for today's students and will guide us through the interactive, sustainable agriculture game, Journey 2050.

Robyn Kurbel Calgary Stampede & Journey 2050

12:30 pm Board Coach Bus with Bag Lunch Provided by Farm to Fork Catering

2:00 pm

Nanton Feedlot Tour

Our first tour of the program will give us a behind the scenes look at role feedlots play in the beef industry . Self-professed “cow-lover” Rick Sears will show us the ins and outs of his facility and allow us the opportunity to meet the veterinarians, nutritionists and other folks that keep the cattle healthy during their time at the feedlot.

Rick Sears, Chinook Feeders; in association with Alberta Cattle Feeders Association

Waldron Ranch and Grazing Co-op Tour

On the eastern slopes of the Canadian Rockies one can still find the native grasslands that once were. We will learn about the Waldron’s collaboration with the Nature Conservancy of Canada and how cattle grazing and conservation have found common ground.

Mike Roberts, Waldron Ranch

5:00-7:30 pm

Dinner at the Sierra West Longhorn Saloon

Get ready to dust off your boots with a game of horseshoes while we get to know one another during this laid back evening of food and fun. We’re cooking up a true taste of Alberta with a BBQ, baked beans and apple crisp. Hosted at a unique cattle ranch a beautiful setting right off the cowboy trail on the foothills of Alberta’s eastern slopes.

7:30-9:00 Travel to Lethbridge and Check-In to the Lethbridge Lodge

Friday May 26 - Grain Farming and Agricultural Innovations

7:00 - 8:00 Breakfast at the Lethbridge Lodge

8:15 Board bus

Have your questions ready!

Local experts *David Hill, Southern Alberta Agriculture, University of Lethbridge & Ron McMullin, Alberta Irrigation Projects Association* will be joining us for this full day of tours featuring producers and innovations in agriculture.

TOUR STOP #1 - Irrigation in Action

Bring your camera! From this viewpoint just outside of Lethbridge the group will see how an irrigation system delivers water to irrigated farms, municipal districts, acreages and wetlands. This interconnected system of canals accesses water from the nearby Waterton, Belly and St. Mary rivers.

Gordon ZoBell, Raymond Irrigation District

TOUR STOP #2 - Potato Domes & Biofuels

There is lots to see and learn at this Domes Technology and Biofuels Farm! We will be on and off the bus checking how these technologies are promoting sustainable agriculture and innovation on these 4000 acres of irrigated land.

Harold Perry, Perry Farm, Coaldale

~12:15 pm Lunch at Broxburn Vegetables & Cafe

TOUR STOP #3 The Future of Food Production

Aquaculture is a rapidly growing field in Alberta. Learn how this unique innovation is changing the agricultural landscape with a tour of the Aquatic Centre of Excellence at Lethbridge College. Our hosts are also excited to speak to the excellent curriculum connections and how to apply aquaculture education in your school.

Nick Savidov & Erik Bergen, Lethbridge College

TOUR STOP #4 Meeting Global Food Needs: The Role of Research

Attention teachers interested in STEM connections this tour is for you! This talk and tour at the Lethbridge Research and Development Centre study plots will showcase the importance of science and technology in ensuring sustainable food production now and into the future.

Yves Plante, Lethbridge Research and Development Centre

TOUR STOP #5 Irrigation Demo Farm

Southern Alberta is a relatively dry and arid place and water is critical to food production. Learn how Alberta is ensuring our irrigation systems balances the multiple demands placed on this valuable resources by changing the way we water.

Rod Bennett, Alberta Irrigation Technology Centre

5:00 pm Return to Hotel

5:30/6:00 pm Walk to dinner at the Telegraph Tap House

Optional Permaculture Walking Tour with Synergy Urban Farming

Saturday May 28 - Agriculture Education

7:00 - 8:30 Breakfast at the Lethbridge Lodge & Hotel Check Out

8:30 Bus to Helen Schüler Nature Centre, Lethbridge

What about Watershed's

Agriculture is deeply connected to the water within a watershed. Learn about the role of Watershed Planning and Advisory Councils (WPAC's) and find out what the Oldman Watershed Council is doing to promote water and agriculture connections in the classroom.

Sofie Forsstrom, Oldman Watershed Council

Agriculture Education Panel Discussion

Hear from a passionate teacher and a support organizations that are doing amazing things with agriculture education in classrooms and beyond. As they each take a few moments to share their story, best practices and resources you will gain ideas and inspiration that can be tailored to your school and students.

Featuring:

Cathy Price, Teacher, Dr. Elliott School

Karen Carle, Alberta Agriculture Education Specialist

Luree Williamson, CEO, Agriculture for Life

Kent Lewarne, Nutrients for Life Education Coordinator

Program Debrief and Reflection

This is your chance to work with the ideas, resources and your colleagues to reflect upon experience and generate ideas for your classroom.

Facilitated by Inside Education

12:15 Bag Lunch and Travel Back to Calgary

****ETA back at Ralph Klein Park by 2:30pm**

This Inside Education Program is possible thanks to the support of:

