

Highlighting the Importance of Ag Education

Issue

With greater attention around food sustainability and the environmental footprint of agriculture, there is a need to raise awareness and provide fact-based education focused on where our food comes from, recognizing the sustainability of agribusiness and its vitally important role in our economy as a natural resource.

Background

Greater awareness around food sustainability and the environmental footprint of agriculture has become progressively more important. As a result, there is an ever-increasing need to provide more fact-based education in order to bridge the information gap between agriculture producers and consumers. This type of education starts at even the most basic level, providing an opportunity to educate our youth in order to ensure that the next generation is educated and informed about where food comes from and the importance of agriculture to our economy and the future sustainability of our food locally, provincially, nationally and internationally.

The 2016 Census of Agriculture found less than 1% of Canadians are farm operators, yet all Canadians participate in the agri-food sector when they go grocery shopping and make food choices¹. Yet, farmers and ranchers feel increasingly under attack because of the public scrutiny and misinformation around the industry. The disconnect between the producers who grow the food we eat and consumers is widening due to urbanization², growing misperceptions and a lack of factual information around this vitally important industry.

To emphasize the importance of our agribusiness industry, based on 2017 annual estimates, 75,100 Albertans were employed in agri-food industries, representing 3.3 per cent of the total provincial workforce with Alberta having one of the world's most productive agricultural economies and a total farm area of 50.3 million acres.³ Despite the decline in farms since 2011 in our province, Alberta continues to rank second, behind Ontario and had the highest number of cattle ranching in the country, representing one third of Canada's beef cattle ranching farms. In addition, Alberta has seen increases in wheat farms, oilseed and grain farms in addition to other grains.⁴

¹ Canadian Agriculture at a Glance, Statistics Canada: <https://www150.statcan.gc.ca/n1/pub/96-325-x/96-325-x2019001-eng.htm>

² Demand for Convenience, Government of Alberta: <https://open.alberta.ca/dataset/b5d936eb-2127-424e-b1b8-818c486d12aa/resource/5d7a504d-ab10-4f1c-843c-79801cf0d412/download/af-consumer-corner-54-demand-for-convenience-2019-11.pdf>

³ Highlights of the Alberta Economy, 2019: <https://investalberta.ca/media/1080313/highlights-of-the-alberta-economy-2019-march-2019.pdf>

⁴ Census of Agriculture Provincial Profiles, Government of Alberta: <https://open.alberta.ca/dataset/8b3e6f0a-5faf-4873-a224-c7446029adcc/resource/e049ffdd-1bbe-4c25-a677-965291dc0633/download/alberta-farm-types-report.pdf>

In 2018, Alberta's real gross domestic product for agri-food industries totaled \$8.5 billion, increasing from \$5.5 billion in 2011⁵. In 2018, Alberta agri-food exports remained strong at \$11.6 billion, exceeding the 2017 record by 3.2 per cent⁶ and exporting to nearly 140 countries. Even though this industry plays a critical role in our eco-system, there is no requirement to educate our youth or public about the facts and information around the role the industry plays in our economy, or to provide education around the sustainability of our agri-food sector.

The Government of Alberta has identified that teaching students where their food comes from and how it is produced is increasingly important as urban students become more disconnected from their rural neighbours⁷. In recognizing this need, there have been various efforts to develop resources and plans to integrate agriculture into the curriculum, including Alberta Agriculture Lesson plans⁸, various education resources and programs⁹, as well as funding for agriculture education and literacy¹⁰. There have also been not for profit and private organizations who have taken a leadership role in Agriculture Education, including Agriculture for Life¹¹ and the Classroom Agriculture Program¹², as well as Nutrients for Life¹³, 4-H¹⁴ and programs such as Journey 2050¹⁵ and Farmers 2050¹⁶.

The challenge becomes linking the resources to our educators and our public. While there are a number of resources pertaining to agriculture that already exist, there are also a number of barriers and challenges presented as to why this is not being taught through our education curriculum.

Consultations have identified that not only do teachers need to be equipped with the outcome connections and resources; they also need to be trained and knowledgeable in the subject matter. If they feel unequipped, these optional courses are not a priority. Educators must also see the value in the resources that will accelerate or deepen their learning, helping their students to learn faster or accelerate their understanding of the curriculum. If this correlation is not made, the information won't be integrated.

A barrier to experiential learning opportunities can be correlated to timetables, as there isn't enough time within Junior High and High schools to do community classrooms or similar learning experiences, as teachers have a prescribed number of minutes they need in each course area. In elementary, because that time is with a single person, they can build in that flexible time to provide various educational opportunities. However, the more teachers you have, the less flex time there is to deliver outcomes through non-traditional learning environments.

⁵ Agriculture Statistics Factsheets, Government of Alberta: <https://open.alberta.ca/publications/1929-4263>

⁶ 2018 Agri-Food Exports, Alberta Highlights, Government of Alberta: <https://open.alberta.ca/dataset/d2476e36-1e8c-43fb-a4b2-15bd09c13773/resource/764d36d5-4f2a-4535-b317-9dc1f8228792/download/exp-19-1.pdf>

⁷ Alberta Agriculture Education Resources: <https://www.alberta.ca/agricultural-education-resources.aspx>

⁸ Alberta Agriculture Education Lesson Plans <https://www.alberta.ca/agricultural-education-lesson-plans.aspx>

⁹ Alberta Education Programs: <https://www.alberta.ca/agricultural-education-programs.aspx>

¹⁰ Canadian Agricultural Partnership for Agriculture Education and Literacy: <https://cap.alberta.ca/CAP/Programs/category/Agricultural%20Education%20and%20Literacy>

¹¹ Agriculture for Life: <http://agricultureforlife.ca/5490-2/>

¹² Classroom Agriculture Program: <https://classroomagriculture.com/Portal/Project/classroomagricultureprogram/pages/home.html>

¹³ Nutrients for Life: <https://www.nutrientsforlife.ca/>

¹⁴ 4-H Canada: <https://4-h-canada.ca/programs>

¹⁵ Journey 2050: <http://www.journey2050.com/>

¹⁶ Farmers 2050: <https://www.farmers2050.com/>

While immersive experiences such as on-farm education or community gardens can be beneficial, the opportunities are often dismissed due to the cost prohibition, and while there are ways to address these costs, there are also opportunities, to deliver programming and curriculum in ways that don't have additional associated costs to ensure there is integration of agriculture education regardless of costs.

There is also a concern amongst educators that additional education, such as agriculture education, may take educators away from their primary course curriculum. However, this again can be addressed by tying the information into learning outcomes and agriculture course curriculum being integrated into the various subject matters. There is importance in relaying the correlation to our local economy and the connections to science, math and social studies in addition to using it as a tool to teach STEM curriculum. When you look at science, technology, engineering and mathematics, agriculture has various components that tie into each of these subject matters.

Ultimately optional courses are not mandatory and so very few teachers will use the resources available if it's not their primary field of interest, nor will students take the optional courses if they don't already have a producer connection or an interest in agriculture already.

We also know that we need a greater emphasis on agriculture, as everyone who eats play a role in agriculture, even as an end consumer. We also know that many conversations have also highlighted the looming skills and labour crisis in Canada's agriculture and food industry. Therefore, in order for Canada to remain competitive, and to lead the way globally, we need to ensure that the next generation's best and brightest minds are knowledgeable about agri-food. By educating our students with current fact-based information, we can further educate the public by embedding this into our everyday conversations at school and at home.

The most effective way to deliver agriculture education will be to embed it within the course curriculum, equipping educators with the materials, resources and knowledge to effectively deliver on the outcomes required and provide a better understanding of the importance of the information and how it fits within the curriculum and into our overall eco-system.

The Alberta Chambers of Commerce recommends the Government of Alberta:

1. Require agriculture education to be incorporated into existing course curriculum with outcomes connected to grade levels;
2. Integrate agriculture in the classroom through entrepreneurial programming;
3. Integrate experiential learning opportunity options such as on-farm learning, community gardens and community classrooms;
4. Integrate fact-based agriculture education tools and resources through learnalberta.ca; and
5. Facilitate agriculture education learning opportunities, resources and connections for educators through teacher's conventions and professional development training options in order to provide the tools, resources and training needed for effective program delivery.