

## **Update on Ecosystem Service Markets and Opportunities for Agriculture in Alberta**

*Submitted by Dr. Marian Weber*

Ecosystem Services are the benefits to humans from healthy functioning ecosystems. Ecosystem services include products such as food, fiber, energy, and clean water that are consumed, as well as climate regulation and water storage that reduce risks to assets, and habitat for fish, wildlife and biodiversity, clean water supplies and wildlife habitat that healthy landscapes and ecosystems provide humans. As land stewards, farmers can take actions that enhance the value of ecosystem services. Some of these actions are a win-win, and increase soil productivity and improve water management. Others come at a cost. Markets for ecosystem services are a way of recognizing the value of healthy ecosystems provide to society and providing incentives to count those values in land management decisions.

The annual value of ecosystem service markets in Canada is between \$462-752 million and a number of producer groups, including the Canadian Cattleman Association, the Dairy Farmers of Canada, the Canadian Forage and Grasslands Association, Canola Growers, Grain Growers, and Egg Farmers of Canada are exploring the implications and opportunities for producers to participate in these markets, to enhance existing and develop new diversified sources of revenue that recognize stewardship practises and support ecologically and economically sustainable agriculture. Changing consumer preferences are also increasing demands for sustainable sourcing of products throughout the supply chain and companies such as Walmart, McDonalds, and Unilever are making commitments for field-to-market sustainable sourcing. Governments are also important potential buyers of ecosystem services on behalf of the public.

The South Saskatchewan Regional Plan identifies payments for ecosystem services as one of the potential strategies for achieving regional objectives for maintaining ecological health and a number of sub-regional plans that align with an ecosystem service approach, such as the Biodiversity Management Framework, and the Bow River Phosphorous Management plan are being developed to provide the policies to support these objectives. Still there are a number of key uncertainties that need to be addressed before we can understand the role of agriculture in these policies, and how such plans could enable market opportunities.

Other countries like the U.S. and Australia have made deep commitments to developing ecosystem service markets in their agricultural policies and programs. An important lesson is that credible science is required to demonstrate that consumers and governments are receiving value for money. Farmers and ranchers want to know the same thing before participating in programs. In order to develop innovative ecosystem service programs, a credible science base is needed to enable to evaluate the costs and benefits of different management actions. This means understanding the potential effectiveness of Beneficial Management Practices (BMPs) for ecosystem services as well as their feasibility and adoptability in the agricultural sector. In particular, the agricultural sector faces many risks including risks of crop failure and yield reduction, risk of drought and weather damage, and risks from price fluctuations.

We need a better understanding of the impact of BMPs on producer operations and particularly business risk management so that we can design contracts that will encourage market participation, and share risks equitably while delivering tangible benefits.

On April 1, 2015, Alberta Innovates – Technology Futures (AITF) launched the project “Development of Information and Science to Support the Provision of Ecosystem Services (ES) on Agricultural Lands.” The project is funded by Alberta Innovates Biosolutions, the Alberta Livestock and Meat Association (ALMA), and AITF and is supporting economic and ecological modeling research at the University of Alberta, the University of Guelph, Alberta Biodiversity Monitoring Institute, and AITF.

Building on a strong legacy of research on Phosphorous Management by Alberta Agriculture and Forestry, we will be working in Indianfarm Creek to develop and test integrated science and decision support tools to credit BMPs for biodiversity, water quality and quantity including wetland restoration. We will be working with producers and the stakeholders across the South Saskatchewan River Basin to better understand the value of ecosystem services to consumers and the public, and to understand the transferability of results and preferred delivery options by producers. The long term objective is to develop the capacity to develop credible and transparent programs for enhancing Ecosystem Services on agricultural landscapes. This project will focus on the following services: water quality; carbon sequestration; water storage to reduce risks from flood and drought; and habitat for wildlife and biodiversity. We will be working closely with our partners in the Agri-Environmental Partnership of Alberta, particularly Agriculture and Forestry, and Alberta Environment and Parks, as well as the Intensive Livestock and Crop Sector Working Groups to disseminate information and results and to inform groups about opportunities to participate in workshops. If you are interested in finding out more about this project, you may contact Dr. Marian Weber, project manager and research scientist at Alberta Innovates Technology Futures, [marian.weber@albertainnovates.ca](mailto:marian.weber@albertainnovates.ca).



## **Join APG and the Rest of the World in Celebrating International Year of Pulses 2016**

*Submitted by APG*

The Alberta Pulse Growers, along with its counterparts across the country and around the world, is counting down to 2016 since the United Nations officially launched the International Year of Pulses 2016 (IYP) on Nov. 10.

“IYP will draw attention to important global issues like nutrition, food security and environmental sustainability,” said Allison Ammeter, Chair of Alberta Pulse Growers (APG) and the IYP Canada Committee. “This attention will ensure the Canadian industry will continue to grow and keep Canadian pulses competitive at the farm gate.”

She added that the ceremony at the Food and Agriculture Organization headquarters in Rome emphasized the important role that beans, peas, lentils and chickpeas play in contributing to healthy people and a healthy planet.

APG kicked off its own IYP activities by developing a glossy calendar featuring photos, stories and recipes that showcase the pulse value chain in Alberta. Copies of the calendar will be available at the APG booth at FarmTech and other events until all copies are distributed. Visit <http://pulse.ab.ca/consumers/iyp2016/> to print your own.

Anticipation for this special year has been building within the global pulse industry since the UN announced the designation in December 2013. For pulse producing nations like Canada, this launch marks the beginning of a year of events, activities and initiatives aimed at increasing consumer awareness and consumption of pulses. Launched alongside IYP was [www.pulses.org](http://www.pulses.org), a global website focused on the health, nutrition and sustainability benefits of pulses, complete with a database of pulse recipes from around the world.

“IYP is an opportunity to capture the attention of consumers and the global food industry, to demonstrate how incorporating more pulses into their diets and food products can improve nutrition and also support the environment,” Ammeter said. “It will leverage the international focus on pulses to build more demand for the pulses that Canadian growers are producing.”

The Canadian IYP festivities will kick off on Jan. 6 at a “Pulse Feast” in Toronto. The evening event, hosted by Chef Michael Smith of Food Network Canada, will attract prominent Canadian media, bloggers and dietitians to enjoy nutritious pulse-based dishes. Guests will be encouraged to take the Pulse Pledge, a commitment to increase their pulse consumption to improve their health and nutrition. Anyone can take the pledge at [www.pulsepledge.com](http://www.pulsepledge.com).



Also making its debut on Jan. 6 will be *Pulses: The Ideal Partner*, a travelling exhibit designed by the Canada Agriculture and Food Museum that will show Canadians why pulses are the ideal partner for their health and the environment. Albertans will have the opportunity to see the exhibit at several events throughout 2016, including at the FarmTech Conference in Edmonton on Jan. 26-28, and Aggie Days in Calgary on April 6-10.

Other activities that the IYP Canada Committee has planned for 2016 include an educational program in Canadian schools developed by Agriculture in the Classroom Canada, a competition for post-secondary food science and culinary students, and a series of sessions on pulse health and nutrition for Canadian health care professionals.

The IYP Canada Committee consists of representatives from APG and its counterparts in other provinces, Pulse Canada, and industry representatives. Ultimately, the goal of IYP Canada is to contribute to the sustainable and profitable growth of the Canadian pulse industry. To learn more about the wide range of activities that support that goal and to learn how you can join the effort, visit [www.iypcanada.ca](http://www.iypcanada.ca).

The Alberta Pulse Growers Commission represents 5,000 growers of field pea, dry bean, lentil, chickpea, faba bean and soybean in Alberta. APG's vision is to have Alberta pulses recognized by consumers as environmentally friendly, healthy, nutritious, and recognized by all producers as being an essential element in a sustainable cropping system. For more information on how APG is celebrating IYP in Alberta, please visit <http://pulse.ab.ca/consumers/iyp2016/>.

# McDonald's Verified Sustainable Beef Pilot Update - November 17, 2015

## Where we're at today

The McDonald's Verified Sustainable Beef Pilot Project (VSB Pilot) has hits its stride over the last several months and celebrated the following significant milestones.

## Indicator Development

After more than 12 months of robust stakeholder engagement, resulting in more than 150 edited versions, the Cow-calf/Extensive and Fed cattle/Intensive indicators are finalized and on the Pilot website ([vsbpilot.ca](http://vsbpilot.ca)). McDonald's recognizes and appreciates the significant insights and value they received from the twelve-member Scientific Advisory Board<sup>(1)</sup>. Most stakeholders provided feedback appreciating these indicators are outcome-based, and not practice-based, allowing the producers to describe in their own manner, how they meet these outcomes. (These indicators have been shared with all enrolled participants and the Canadian Roundtable for Sustainable Beef Indicator Committee has used them as a starting point to help them draft their own indicators (over the months of September – October).

## Field Engagement

Field engagement ramps up:

- a. **Phase 1** – In Phase 1 we began working directly with a few select producers who volunteered as part of a beta-test group. This work enabled us to test and rework the indicators at the same time the verification company, Where Food Comes From, refined their verification procedures, and trained Canadian verifiers to manage the pilot;
- b. **Phase 2** – During Phase 2 we opened up the door to more producers as we continued to refine the indicators, develop comprehensive training materials for the verifiers and train additional verifiers, calibrate amongst verifiers on the finalized set of indicators; develop verification guidance and develop a producer manual/starter tool-kit for the pilot as we learned what works and doesn't work for field engagement and share lessons with the Canadian Roundtable for Sustainable Beef (CRSB).
- c. **Phase 3 (Multiplier strategy)** – We made two calls for proposals (CFPs) to members of the beef community to help engage and enroll members of their producer community in the Pilot. To ensure a smooth transition to the CRSB, we are multiplying our efforts through others (e.g. Forage associations, Breeders, 4-H Clubs, Veterinary clinics and Feed companies) in the Canadian beef community. We began partnering with key leaders in the beef community to hold field workshops hosted by producers who have been through verifications so they can share their first hand experiences. Verifiers are also present at these workshops so producers can ask questions and gain insights before they go through

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(1 Fawn Jackson-CCA, Bob Lowe-ABP, Page Stuart-ACFA, Jackie Wepruk-NFACC, Susan Church-AB Chair NCC, Melinda German-MBP, Lauren Stone-Cargill, Nancy Labbe-WWF, William Burnidge-TNC, Julie Dawson-AAFC, John Basarab, UA & Lacombe Research Centre, Joe Stookey, USK)



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their own verification. Included in this multiplier strategy is an outreach to 4-H beef clubs. 10,000 of the 25,000 total Canadian 4-H club members are involved in beef clubs. This provides us with a unique opportunity to collaborate with the next generation of Canadian beef producers and shape the short term grass roots involvement in the pilot and the long term involvement in the CRSB. We are providing an opportunity for Canadian 4-H beef club members to get involved in workshops and in their family's pilot verifications. We are also providing the beef clubs with an opportunity to win cash prizes for their submission of You Tube videos describing why sustainable beef is important to their family's operation and how they plan on making continuous improvements in sustainable beef.

- d. **Build a solid Communications Strategy** – We are leveraging social media to raise awareness and connect with members of the beef community about the pilot. We have a twitter account @vsb\_pilot; a facebook page (new); our website (continually updated) and a private You Tube channel. We are managing outward bound communications through Constant Contact software that enables us to measure, monitor and manage communications with participants based on their actions.

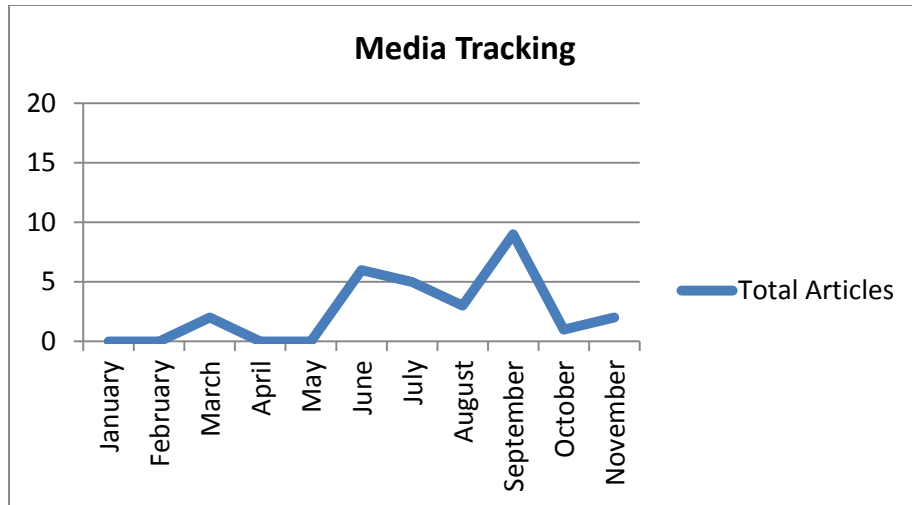
Numerous video communications have been produced and are utilized at the workshop and in outreach opportunities. These videos can be viewed by clicking on the links below:

You Tube Video Title	Link
1. Why is the VSB Pilot important?	<a href="http://bit.ly/1H7GIY3">http://bit.ly/1H7GIY3</a>
2. Why did you get involved?	<a href="http://bit.ly/1PyYZdV">http://bit.ly/1PyYZdV</a>
3. Why did you participate?	<a href="http://bit.ly/1QLatKN">http://bit.ly/1QLatKN</a>
4. Advice for others?	<a href="http://bit.ly/1OegBsc">http://bit.ly/1OegBsc</a>
5. Tips on preparing for verification	<a href="http://bit.ly/1PNjBxr">http://bit.ly/1PNjBxr</a>
6. Getting ready for verification	<a href="http://bit.ly/1SWX6q3">http://bit.ly/1SWX6q3</a>
7. Our Sustainable Beef Journey, Sustainability, McDonald's	<a href="http://bit.ly/1MDS1yk">http://bit.ly/1MDS1yk</a>

The number of media opportunities has ramped up significantly as shown in the following media tracking graph:



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The number of calls that the Team is getting from producers interested in directly engaging in the Pilot is increasing, as a result of the communications strategy.

- e. **Value proposition** – The value proposition for pilot participants continues to be, but with much more emphasis on the leadership opportunity to inform the CRSB:
- i. **Leadership opportunity** – Producers take an active role in shaping the future of the Canadian beef community through the CRSB; and
  - ii. **Free verification** – McDonald's pays for them to receive a confidential, professional, independent verification of their operation with the opportunity to benchmark their results against their peers at the end of the pilot; and
  - iii. **Share their story** – The opportunity to participate in the pilot celebration workshop in April, 2016 and share their personal vision of what sustainable beef means to them and why that is important.

### Where we're headed – Field Management

We will be participating in the following activities:

- a. Ongoing ABP regional meetings
- b. Beef Booster Cattle Industry Focus Group – week of November 23
- c. Longview 4H Club Workshop at Chinook Ranch – November 20
- d. Western Canada conference on soil health – December 8-10
- e. Foothills Forage Association Workshop – Date TBD
- f. West Central Forage Association Workshops – Dates TBD
- g. Beef Boosters Industry workshop, Thorlakson Feed yards – February 24, 2016

### Verifications

**Verifications ramping up** – Based on follow-up conversations with participants, the verifications have gone very well. Three Alberta-based verifiers have been recruited and trained and are conducting verifications (Gord Stephenson, Peg Strankman and Neil Gillies). After the finalization of the indicators,





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and final calibration of the verification team, we've been catching up to the backlog of reports. The statistics as of November 16<sup>th</sup> are:

- 56 verifications completed
- 14 verifications scheduled
- 12 being scheduled (Dec/Jan)
- 20 reports sent out

Timeline for remaining reports:

- By Nov 30 all verifications conducted thru October will have received their reports
- November verifications will receive their reports early December

## Where we're headed – Verifications

**Verifications** – We will continue working with Where Food Comes From to schedule and complete verifications and disseminate reports. We will begin drafting the benchmarking reports and sharing drafts with participants to refine them and deliver the most value while being reviewed at the celebration workshop in April.

## Data Analysis

**Data Analysis** – we are compiling verification reports and results as they come in, to prepare benchmarking analysis and reports back to producers. In addition, we are monitoring BIXS performance on a monthly basis and troubleshooting issues as they arise.

## Participation to Date

Participant Status		CC	FC	B	?	P	Date 11/17/15
0	Interested (dormant)	19	5	2	5	0	31
1	Ongoing interest	58	11	10	3	2	84
2	Ready for pre-verification	2	0	0	0	0	2
3	Ready for verification	10	2	0	0	0	12
4	Verification scheduled	9	2	3	0	0	14
5	Verification complete (awaiting report)	22	5	9	0	0	36
5.1	Verification complete w barriers to entry	1	1	0	0	0	2
5.2	Verification complete (Entry Level)	0	0	1	0	0	1
6	Verified	11	3	2	0	1	17
<b>Total participants</b>		<b>132</b>	<b>29</b>	<b>27</b>	<b>8</b>	<b>3</b>	<b>199</b>

To learn about how to get enrolled or want more information email: [info@mcdvsb.com](mailto:info@mcdvsb.com).





## **Partner Profile: Agriculture and Agri-Food Canada**

*Submitted by AAFC*

Agriculture and Agri-Food Canada (AAFC) was created in 1868 – one year after Canada became a country – due to the importance of farming to the nation's economic, social and cultural development.

Our department works with farmers and food producers to support the growth and development of the agriculture and agri-food sector. AAFC policies, programs, research and technology help them succeed in Canadian and global markets.

Agriculture has a major impact on the economy. For example, canola, now the oil of choice for millions around the world, was developed by Canadian scientists and planted by Canadian farmers. In 2013, Canada contributed 33% to global canola exports.

The agriculture and agri-food industry contributes over \$100 billion annually to Canada's gross domestic product (GDP), which is more than the national GDP of 2/3 of the world's countries.

Canada is the 5<sup>th</sup> largest agricultural exporter in the world, and the agriculture and agri-food industry employs 2.2 million Canadians (that's 1 in 8 jobs). We produce about 80% of the world's maple syrup, we are the world's largest *exporter* of flaxseed, canola, pulses and durum wheat and we're one of the largest *producers* of flaxseed, canola, pulses and durum wheat.

AAFC has a national network of 19 agriculture research centres, including two primary centres in Lacombe and Lethbridge, and two substations in Vauxhall and Beaverlodge. With our partners we tackle new challenges every day, such as researching new ways to fight disease; improving crop varieties and yields; and ensuring that our food products are healthy, safe and of high quality.

Clean air, soil and water are everyone's priority. Building on the tradition of Canadian farmers as stewards of the land, AAFC continues to invest in science and work with farmers to ensure that Canada's food comes from sustainable farming practices. Our research efforts will help address the complex risks from climate change and take advantage of related opportunities.

AAFC programs help farmers maximize long-term profitability and competitiveness in markets throughout Canada and abroad. These programs help Canadian producers and processors adapt to changes in consumer demand, shifts in global competition, and production challenges caused by severe weather, disease or trade actions.

*Growing Forward 2* (GF2) is a five-year (2013-2018) policy framework for Canada's agricultural and agri-food sector. A \$3 billion dollar investment by federal, provinces and territorial governments, GF2 programs focus on innovation, competitiveness and market development to ensure Canadian producers and processors have the tools and resources they need to continue to innovate and capitalize on emerging market opportunities.

For more information: Email: [info@agr.gc.ca](mailto:info@agr.gc.ca) Web: [www.agr.gc.ca](http://www.agr.gc.ca)