

Agricultural Plastics Recycling in Alberta – Whitepaper

December 6, 2018

Executive Summary

This document intends to provide an update on the state of agricultural plastics management in the Province of Alberta. It provides a history of the recycling pilot programs, surveys and research that have been done in the past decade and the current need for a provincial agricultural recycling program. It also explores the programs in other provinces as positive examples of environmental stewardship. It is the Agricultural Plastics Recycling Group's (made up of 20 stakeholder associations and connected members and partners) recommendation for the Government of Alberta to put in place recycling legislation for grain bags and twine as soon as possible.

This whitepaper will be reviewed and updated at each APRG meeting with current information. This draft is dated **December 6, 2018**.

Introduction: The Agricultural Plastics Recycling Group (APRG)

In December 2016, a working group formed to advance the discussion and action on the topic of agricultural plastics recycling. The APRG gathered stakeholders for further discussion about a provincial solution for ag plastics recycling because of concerns over the lack of options for the waste material, combined with the absence of policy for a provincial agricultural plastics diversion program. From January to June 2017, the group met with over half a dozen producer groups and communicated to over 30 producer groups in the province (representing dairy, beef and crop agricultural producers among others) to update them on the topics and issues of ag plastics waste and recycling.

In August of 2017, a group of 70 representatives from municipalities and producer groups gathered for discussions about challenges and opportunities around agricultural plastics recycling. This was the start of discussions to form policy recommendations to present to the Government of Alberta.

To include a wide group of stakeholders, the APRG extended invitations to join to agricultural producer groups, retailers, manufacturers and others in November 2017.

Managing Ag Plastics Waste – Background

Agricultural plastics, in the form of baler twine, grain bags, bale wrap, silage plastic and feed bags of various sizes and materials are a problematic waste for agricultural producers and agricultural businesses and pose an environmental threat. Anecdotal evidence, as well as data from surveys (see links throughout the document), suggest plastics use is increasing with limited options for safe disposal. In 2013, CleanFARMS Inc., in partnership with Alberta Agriculture & Rural Development (ARD), initiated an [Alberta Agricultural Waste Characterization Study](#), to identify and quantify significant sources of paper and plastic waste on Alberta farms. The study showed that the total agricultural film waste, including grain bags and silage plastic, is an estimated 3300 to 6400 tonnes per year in Alberta. At the same time, estimates for waste twine were 2000 to 6000 tonnes per year. These volumes represent a significant waste of resources, as well as pose a logistical waste management challenge. Landfills may prohibit or limit the disposal of some agricultural plastics, more specifically twine, because of the handling challenges it presents such as potential damage to equipment. Burning on farms was listed as one of the top disposal options for four out of five agricultural plastics categories in a [2012 Agricultural Plastics Recycling Agricultural Producers Survey](#) (pg.20). Research shows that harmful compounds are

released from burning plastic at low temperatures such as open burning, and emissions such as dioxins and furans accumulate in soil and bio-accumulate in fat as they move up the food chain.

“Overall, 82% of agricultural plastics users say they are concerned about how they deal with agricultural plastics, while 87% say it is important to them to be able to recycle agricultural plastics – in fact, just under half (44%) say it is very important. The majority, however, do not feel that they can do so – 74% say it is difficult for them to recycle agricultural plastics, with half (48%) saying it is very difficult, and 63% are dissatisfied with their current access to recycling agricultural plastics.” [2012 Agricultural Plastics Recycling Agricultural Producers Survey](#) (pg.20)

Prior to these surveys, in 2007, the Recycling Council of Alberta (RCA) established a working group with representatives from the Alberta Plastics Recycling Association (APRA), the plastic manufacturing sector, retailers, recycling project operators, Alberta Agriculture, Alberta Environment, and recyclers to look at options for agricultural plastic waste. This working group established a number of initiatives, including a series of pilot projects, to assess the viability of recycling agricultural plastics in this province. One of the conclusions of the group’s work was the need for a provincial environmental stewardship program to provide sustainability for agricultural plastics recycling. As evidence from the pilot program shows, a provincial program would create equal access to recycling in all parts of the province, as well as guarantee volumes of waste to create economies of scale for plastics recycling.

Since the conclusion of the pilot projects, pockets of recycling have been established, and an increasing number of communities are interested in developing recycling programs. For example, Mountain View Regional Waste Management Commission has funded agricultural plastics recycling for a number of years. At the same time, counties, including Rocky View, Yellowhead, and Wheatland are collecting film materials such as grain bags and silage plastic, for recycling into products like garbage bags. The only challenge is, these programs only supply a recycling option to a very small percentage of the population.

Agricultural plastics management practices have been researched by the Alberta Government in a number of studies that point for the need for proper management including: [Market-Based Solutions for Used Agricultural Plastics: Survey of Municipalities](#), [Market-Based Solutions for Used Agricultural Plastics Part 2: Survey of Municipal Waste Authorities](#), [Agricultural Plastics Recycling – Agricultural Producers Survey](#), [Agricultural Plastics Recycling – Municipal Waste Authorities Survey](#).

The Solution

The largest challenge to expand recycling opportunities to all areas of the province remains the lack of a provincially-regulated ag plastics recycling program. With a provincial program, accessibility to recycling would increase, and agricultural producers in all agricultural-intensive regions of the province would have access to a well-resourced and environmentally beneficial recycling program. Environmental stewardship programs also ensure financial fairness, as those benefiting from the use of the product are the ones who contribute funding to have the material recycled.

This assertion has been supported by a number of organizations, including the recent resolutions passed by Alberta’s Agricultural Service Boards in 2016, that the Ministry of Environment and Parks and the Ministry of Agriculture and Forestry research, develop, and implement an agricultural plastics recycling program modelled after the pilot program in the Province of Saskatchewan. *See appendix for the full resolution.*

Who will oppose?

ARPG's participants include organizations representing industry, agriculture, municipalities and recyclers, who support agricultural plastics recycling program as a provincially-regulated program. Questions from the stakeholder groups include costs (such as environmental handling fees) that could be associated with a program. Cost is the largest area of apprehension for the producer groups representing agricultural producers. However, agricultural producers are a key stakeholder in this issue as the primary users of agricultural plastics, and those burdened with a lack of sustainable options for management of waste plastics. The majority agree that there is greater demand for recycling solutions than concern over cost and that an effective program will include consultation and communication about costs before the program starts.

Impacts to the Public

The stakeholder group has also considered the perspectives of the broader public and how they may be impacted, despite not being directly involved in the purchase, use, or end of life management of agricultural plastics. In many cases today, Albertans that live in municipalities with local recycling programs for agricultural plastics are paying for these programs through their municipal taxes. This cost-burden will be reduced or eliminated if the recycling program is transferred away from the municipality, toward those that either make or use the plastics. It is unknown whether the creation of an agricultural plastics program will result in increased costs of consumer products and those changes will depend if agricultural producers pass along any increased costs from their operation. It is believed that if this were to occur, the increased cost would be negligible. There are more perceived benefits to the public, from a change in practice to recycling from the current practice of burning plastics on farm, than negative impacts.

Accountability – advisory group

The APRG also feels that policy should allow for an advisory committee where producer groups and stakeholders actively participate in the development of the program and contribute to decisions. Because a program would be designed as a service to the agricultural producers who use the plastic, it is logical that they would contribute to discussions about the program design.

Scope of materials

With input and representation from the users of the plastics (the agricultural producers and their organizations) and the recyclers and processors of the material, the APRG believes grain bags and twine offer a good starting point for a provincial program. These are the two largest contributors to material volumes and have current available markets. Collection, processing and transportation logistics have also been established through current collection and past pilot programs.

Research and pilots will be conducted on the potential to recycle an expanded list of materials, with the goal to revisit the regulation after the initial material collection has been implemented successfully, to consider expanding collection to other types of agricultural plastics.

Other plastics materials, include but are not limited to:

- Bale wrap, silage plastic, boat/machinery wrap, green house plastic, net wrap, rope (square bale and other), mineral bags, and feed/seed bags

Other Provinces

In Saskatchewan, [The Agricultural Packaging Product Waste Stewardship Regulations](#), introduced after [agricultural waste stewardship research](#), has made it mandatory that every grain bag seller develop and fund a program to recycle grain bags. This program started November 1, 2018. More information can be found [here](#).

In Saskatchewan's EPR model, the first importers are responsible to ensure there is a program to recycle grain bags. In their case, the importers have selected an organization to run the program for them and to charge an environmental handling fee of 5-7% to cover the costs of the grain bag collection and recycling.

A series of [government-funded pilot programs](#) are available in Manitoba to recycle bale/silage plastic, twine and grain bags. Going forward, there is interest in taking an approach similar to Saskatchewan's.

Efficiencies and harmonization among provincial programs are particularly important for agricultural plastics recycling because of the importance of a level playing field to the agricultural industry.

A Western solution would also prevent issues such as cross-border shopping.

Prepared by the Agricultural Plastics Recycling Group (APRG):

Organization	Sector/Representation
Agricultural Service Board	Board Representation
Association of AB Agricultural Fieldmen	Ag Fieldmen
Alberta Agriculture & Forestry	Government (ex officio)
Alberta Barley	Barley Producers
Alberta Beef Producers	Livestock
Alberta Cattle Feeders Association	Livestock
Alberta CARE	Recycling and Waste Management
Alberta Environment & Parks	Government (ex officio)
Alberta Federation of Agriculture	Producers
Alberta Milk Producers	Dairy Producers
Alberta Plastics Recycling Association	Plastics Recycling
Alberta Urban Municipalities Association (AUMA)	Urban Municipalities
Committed Ag Supply	Retailer
Crop Sector Working Group	Crop Producers
Merlin Plastics	Recycler
Olds College	Academia
Peavey Mart	Retailer
Recycling Council of Alberta	Recycling and Resource Conservation
RPC BPI Agriculture	Material Manufacturer
Rural Municipalities Association (RMA)	Municipalities
TAMA Canada	Retailer

Attachments:

- a. Ag Service Board's Resolution
- b. AAMDC Resolution

Summary of Endorsed ASB and AAMDC Resolutions Related to Ag Plastics Recycling		
12-15 (ASB)	<p>Agriculture Plastics Recycling</p> <ul style="list-style-type: none"> • <i>Resolution Ask</i> <ul style="list-style-type: none"> ○ Implement a stewardship program with funding for collection and recycling of agricultural plastics • <i>Resolution Response</i> <ul style="list-style-type: none"> ○ Environment – not currently considering a recycling program but working on an education program in collaboration with Agriculture on environmental impact of burning plastics and current options for disposal ○ Would need a regulation to implement a stewardship program and would require environmental fees ○ ARMA – not currently within mandate to act on ag plastics ○ Will be reviewing with Board of Directors and Minister and will provide input informally 	Resolution Status: Unsatisfactory
7-15F (AAMDC)	<p>Agriculture Plastics Recycling</p> <ul style="list-style-type: none"> • <i>Resolution Ask:</i> <ul style="list-style-type: none"> ○ That Alberta Environment and Parks develop a recycling program for agricultural plastics in Alberta • <i>Resolution Response</i> <ul style="list-style-type: none"> ○ Agriculture and Forestry – Worked with Environment and Parks and CleanFARMS on a study showing that agricultural plastics contributed only 1% of waste sent to landfills. AF currently sits on a committee with AAMDC and other stakeholders to develop policy options for ag plastic recycling. ○ Environment and Parks – Not currently considering a regulated recycling program for ag plastics. 	Resolution Status: Intent Not Met

December 10, 2018

Dear Agricultural Plastics Recycling Group (APRG) Members and Provincial Stakeholders;

I'm writing this letter on behalf of the APRG Advisory Committee. We are continuing our efforts to bring forward recommendations for the management of agricultural plastics. In November Minister Shannon Phillips, Environment and Parks and Minister Oneil Carlier, Agriculture and Forestry announced funding for a province-wide agricultural plastics recycling pilot project. We have now submitted the application with details on the pilot program and we hope to have the government's formal approval within the next two months. As it stands now, we will look to build this as a three-year program for grain bags and twine with waste characterization and market studies to ensure we have accurate data about what materials are being generated and look for responsible management options for all agricultural plastics. Other details on the program will need to be finalized and can be shared once we have government approval.

At our meeting on December 6, the APRG Advisory Committee, made up of representatives from the organizations listed on page two, approved our Terms of Reference and nominated an executive committee for the next year. The APRG will act in an advisory role with the mandate to assist in the development of recommendations to manage agricultural plastics including promoting ag plastics recycling actions and programs that are sustainable and implementing the terms set out in the pilot program business plan. Alberta Beef has been elected as the program administrator to receive the funding from the government and the committee will determine the pilot operations and details.

Executive:

Al Kemmere, RMA, Chair
Tammy Schwass, APRA, Secretary
Christina Seidel, RCA, Executive
Assar Grinde, AB Beef, Executive
Neil Gorda, AB Barley, Executive

We would like to thank all the groups and individuals that have contributed and collaborated to support a provincial solution to manage agricultural plastics. We will continue to keep everyone informed with updates and news as we receive them and please continue share updates with your members. If you have any questions, please do not hesitate to reach me or your committee representatives.

We wish you all a safe and happy holiday season,

Sincerely,

Al Kemmere, Chair
APRG Advisory Committee
akemmere@rmalberta.com

APRG Member Organizations:

Organization	Sector/Representation
Agricultural Service Board	Board Representation
Association of AB Agricultural Fieldmen	Ag Fieldmen
Alberta Agriculture & Forestry	Government (ex officio)
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Alberta Farm Animal Care

Submitted by Kristen Hall

In 1993, members of the commodity livestock sector came together to create Alberta Farm Animal Care (AFAC) as a collective voice for an industry that was facing increasing questions about animal welfare. The partners wanted a separate organization that could speak to the practices of all animal agriculture in a way that was honest and credible.

Now, 25 years later, AFAC is still a member-driven organization with over 80 members, and growing - and the public has more questions than ever about the way the livestock industry raises these animals. Many of the original commodity groups have developed comprehensive animal welfare programs and AFAC continues to support the industry with extension resources and activities, and continues to communicate with consumers to build public trust in the sector.

Extension activities include resource development, facilitating partnerships for projects and research, and hosting workshops to enable hands-on learning. Examples include the Cattle Benchmarking Project, a partnership with Alberta Milk, Alberta Beef and Alberta Cattle Feeders to determine the condition of beef and dairy cattle upon arrival at auction markets and abattoirs. Workshop topics include stockmanship, humane euthanasia, small flock care and Technical Large Animal Emergency Rescue (TLAER) training.

AFAC spends much of the year **engaging the public** with information about the livestock sector at events such as the Calgary Stampede, Aggie Days in Calgary and Lethbridge, Amazing Ag in Edmonton, school visits in partnership with groups such as Ag for Life and Classroom Ag Program and a post-secondary program that speaks with students in every ag school from Grande Prairie College in Fairview to Lethbridge College in the south to ensure they are aware of AFAC and the support it offers.

Two critical services offered by AFAC are the **24/7 ALERT Line** and resource team which allows “producers to help producers” with a confidential service that can address issues as they arise. The Line also supports a continuously growing network of Emergency Livestock Handling Equipment Trailers throughout the province (currently 18 are ready for any livestock emergency). Call the ALERT Line at 1-800-506-2273 and look for more details on our website www.afac.ab.ca.

The **Livestock Care Conference** is the highlight of the year. We bring our members from all sectors of the livestock industry together for two days in March to network, learn about new research results, mentor post-secondary students and to collaborate with stakeholders, partners and members on new initiatives for the coming year. Registration is now open for the 2019 Livestock Care Conference.

The strategic direction for 2019-2021 is rooted in partnerships and cooperation as the work continues to ensure primary producers have the tools and resources they need, and that the public has confidence in the way their food is raised. These are targets the industry can only achieve by working together.

For more information on AFAC, its programs and resources, go to www.afac.ab.ca.

Canadian Agriculture Partnership (CAP), Farm Energy Agri-Processing (FEAP) and Farm Solar Photovoltaics (OFSVP) Update

Submitted by Alberta Agriculture and Forestry

Introduction

For farmers and ranchers the Environmental Stewardship and Climate Change program of CAP supports the purchase of things like sectional controls for sprayers and seeders, agricultural plastic bag rollers, as well as a number of activities targeting livestock producers:

https://cap.alberta.ca/CAP/program/STEW_PROD. For this program a valid (under 10 year) Environmental Farm Plan is needed to apply. Other programs under CAP for producers include Farm Water Supply as well as Irrigation Efficiency. In addition to CAP, for those that plan to build or retrofit a shop or barn or have done so lately, the Farm Energy and Agri-Processing program (FEAP) rewards things like lights, furnaces, and insulation:

<https://www1.agric.gov.ab.ca/general/progserv.nsf/all/pgmsrv462> and the On-Farm Solar Photovoltaic (OFSVP) program helps with the cost of solar installs:

<http://www1.agric.gov.ab.ca/general/progserv.nsf/all/pgmsrv464>

Other CAP programs, targeted more at groups and organizations, include: Environmental Stewardship and Climate Change – Group, Agriculture and Food Sustainability Assurance Initiatives, Public Agriculture Literacy, Youth Agriculture Education, Emerging Opportunities in Food and Agri-Processing, Products to Markets, Value-Added Processing, and a few that have recently opened:

- Risk Mitigation – launched October 23, 2018
- Surveillance – launched November 14, 2018
- Accelerating the Advancement of Agricultural Innovations – launched November 20, 2018
- Adapting Innovative Solutions in Agriculture – launched November 20, 2018
- Emergency Preparedness – launched December 3, 2018

The remaining program to launch (as of Dec 13th, 2018) is Emerging Opportunities in Food and Agri-Processing.

For more information and ongoing updates about the different CAP programs please go to:

<https://cap.alberta.ca/CAP/Programs> and subscribe to get the latest news, however a few detailed updates may be of interest:

Environmental Stewardship and Climate Change (ESCC) Producer Program

The CAP Environmental Stewardship and Climate Change (ESCC) Producer Program launched April 1st 2018 and has so far received 290 applications, 159 have been approved and an additional 26 have been completed. From the 26 completed projects 28 BMPs have been implemented on farm with an expected 208 BMPs to be implemented once the 159 approved projects have been completed.

With our new flexible cost share percentage being assigned to each application based upon risk, 91 projects have been funded at 70% cost share, 56 have been funded at 50% and 38 funded at 30%. Program staff feel that the ability to have a cost share that reflects the environmental risk present on the operation has been effective in allocating dollars towards higher risk areas and towards more effective solutions to environmental projects.

For the CAP Environmental Sustainability and Climate Change (ESCC) Group Program we have received 22 applications and have approved 17. These approvals account for over \$3,200,000 over the next 5 years. The group program applications are reviewed at set times during the year with the next intake deadline being January 31, 2019. For more information on what is needed for an application and eligibility criteria please visit the CAP ESCC Group [website](#).

Despite the early success demonstrated by both the producer and group programs, program staff are still working hard to increase awareness of these funding opportunities to both producers and agricultural organizations. We are looking to our extension partners to help us inform all potential program applicants of the funding opportunities that exist under the CAP ESCC programs. We hope that by leveraging our partner's communication channels (newspaper articles, newsletters, social media, etc.) we can better support our shared clients and increase overall application to the program over the coming months and years. The majority of program information can be found on the program websites ([ESCC Producer](#) and [ESCC Group](#)), however if you would like to develop a more directed or detailed message please do not hesitate to contact the program directly at CAP.ESandCCProgram@gov.ab.ca and we will be sure to respond to your request as soon as we can.

Public Trust Theme

The response to all three Public Trust Programs has been very encouraging, however program staff are still working hard to increase awareness to all eligible applicant organizations. It is for this reason that we are looking to our extension partners to help us inform all potential program applicants of the funding opportunities that exist under the CAP Public Trust programs.

To date we have approved funding for 18 projects, totaling almost \$1.7M over 3 years. Project types such as those listed below demonstrate the agriculture industry's willingness and passion to connect with the public and answer any questions or concerns about how their food is produced:

- Connecting with consumers to determine the root cause of confusion and misconceptions surrounding specific labelling and production practices;
- Engaging communications specialists to provide specialized media training to groups of producers;
- Designing awareness campaigns surrounding existing Alberta sustainability and assurance platforms;
- Adaptation of existing sustainability platforms to target new markets, address existing and upcoming regulatory issues, and increase the social license of particular commodities;
- Encouraging students and teachers to develop critical thinking when learning about hot-button agriculture topics.

Each applicant who was approved had clearly defined public trust issues to be addressed by their project. As this is a merit-based program, general agriculture awareness projects did not score well and were not selected for funding.

The majority of program information can be found on our program websites (Public Agriculture Literacy, Agriculture and Food Sustainability Assurance Initiatives, and Youth Agriculture Program) however if you would like to develop a more directed or detailed message please do not hesitate to contact the



program directly at CAP.PublicTrust@gov.ab.ca and we will be sure to respond to your request as soon as we can. Coordinator contact information for each program is also found on the program websites.

https://cap.alberta.ca/CAP/program/PUBLIC_LITERACY

https://cap.alberta.ca/CAP/program/PUBLIC_ASSURANCE

https://cap.alberta.ca/CAP/program/YOUTH_EDUCATION

Partner Profile: The Potato Growers of Alberta

Submitted by Deb Brewin

What is the PGA?

The Potato Growers of Alberta (PGA) is a not for profit potato grower organization that aims to increase the success of the potato growing industry in Alberta. The PGA works on three fronts: education and extension, promotion, and research. Founded in 1966, the PGA continues to be the voice of the potato industry in Alberta

Education & Extension

The PGA helps Alberta Potato Growers access the latest technology and information. At the PGA Annual Potato Conference and Trade Show, members come to hear professionals from across North America deliver exciting new information related to the potato industry and farm management. Throughout the year, growers gather at breakfast and dinner meetings to discuss current issues in production, potato varieties, pest management and the like. To provide our members with this current national and international information, PGA staff attend conferences, gather information on the latest trends and research findings, and pass on what we have learned to growers through the Potato Minute Newsletter, our Friday Facts, and bulletins.

Marketing & Promotion

Another important part of our work is promoting the Alberta Potato Industry to consumers, retailers, processors, international markets, and industry groups. The PGA travels to trade conferences, develops promotional brochures, learning materials and programs for the general public. We strive to educate the general public and school aged children on the nutritional value and health benefits of the potato, as well as, the many different varieties that are available. We represent the Potato Growers of Alberta at all levels of government in Alberta, Canada and internationally.

Research

Research has been an integral part of the Alberta Potato Industry since the very beginning. Several advancements in managing the land, the crop and the farm are very evident today. The PGA continues to advance the potato growing industry by funding new and ongoing research projects. Our research fund is provided mainly from a research levy on potatoes grown in the Province. Research grants also contribute to research dollars. Potato researchers apply for funding directly to the research committee of the PGA.

For more information about the PGA please go to <https://www.albertapotatoes.ca/>

Potato Growers of Alberta 6008-46 Avenue Taber, Alberta T1G 2B1 Phone: (403) 223-2262 Fax: (403) 223-2268 Email: pga@albertapotatoes.ca



Working with Water Update

Submitted by Paul Jungnitsch

The AEPA Water Working Group (WWG) continues to work with Alberta Environment and Parks (AEP) to clarify the regulations affecting water and wetlands.

There was further information that would be of special interest to agriculture. The Water Act, Wetland Policy, Public Lands Act and others all have requirements that farmers should be aware of, as well as exemptions that can be useful.

AEP is rolling out a new online process for Water Act approvals. Water Act approvals, approval amendments, and Code of Practice notices will be available through an online application process under a new Environmental Approvals System called OneStop. This new system is designed to streamline the application process and increase the efficiency for approving applications. Applications under a Code of Practice can start on Nov 30, 2018 and Water Act approvals on January 18th, 2019.

<http://aep.alberta.ca/water/forms-applications/water-act-forms.aspx>. A user guide is planned for mid-year.

An Authorization Viewer, where you can view what approvals are already on your land, is available here: <https://avw.alberta.ca/ApprovalViewer.aspx>. For those who want to get into the nitty gritty of regulations, the Water (Ministerial) Regulation (with exemptions) is here: http://www.qp.alberta.ca/documents/regs/1998_205.pdf

Water Act *approvals* deal with activities in a water body. Both activities and water bodies have very broad definitions. Ditches are a common practice that needs a Water Act approval, as well as pumping of low areas. Agriculture has exemptions for fencing, landscaping, beaver dam removal, and dugouts under 2500m³, however there are certain conditions that need to be met for the exemptions to apply. More information can be found at: <http://aep.alberta.ca/water/legislation-guidelines/water-act.aspx>.

Water Act *licenses* deal with consumptive use of water. A Temporary Diversion license is one example, an online process good for one year : <http://aep.alberta.ca/water/forms-applications/online-application-for-a-temporary-diversion-licence.aspx>. Agriculture has a certain amount of exemption for household and agricultural use, however there are certain conditions that need to be met for the exemptions to apply. Can be more complicated in closed basins like the South Saskatchewan.

The Wetland *policy* adds additional considerations to wet areas, and it is important to know that from a regulatory point of view, *wetlands don't have to be wet*. AEP identifies them based on vegetation and soils, not what their water state is at the current time. The policy requires that wetlands which are to be drained or have dugouts placed in them to have assessments completed (ABWRET-A or ABWRET-D) and replacement values paid. More information on the Alberta Wetland Policy can be found at: <http://aep.alberta.ca/water/programs-and-services/wetlands/alberta-wetland-policy.aspx>. If you have any further policy questions then you can send an email to :Aep.wetlands@gov.ab.ca

The Public Lands Act is an additional factor to be aware of as it grants the crown ownership of the bed and shore of all permanent and natural water bodies.

It is important to note that the purpose of the Water Act is a balance between the environment and economic growth/prosperity. AEP has offered to work with the WWG to help explain these requirements with a series of webinars to help explain the details of water regulations and guide agriculture through the processes, as well they are working on a print guide for tile drainage, surface drainage, and dewatering.

The WWG has emphasised the importance of agriculture identifying and building what it needs to ensure access to water and water management in the long term.

For more information contact Fiona Briody, AEPA WWG Chair, at fiona.cswg@gmail.com

Manure Management Update 2019

8:30 Registration and Coffee

8:50 Welcome

9:00 Manure Management – Jeff Schoenau, *University of Saskatchewan (Unv. Sask)*

9:30 Canadian Agricultural Partnership – Barb Archibald, *Alberta Agriculture & Forestry (AF)*

9:50 AOPA 101 – Deanne Madsen (AF)

10:10 Coffee

10:30 NRCB 101: Application – Andy Cumming, Compliance – Kevin Seward (NRCB)

11:15 Good Neighbours and Expansion of Operations – Ron Axelson, *Intensive Livestock Working Group*

11:35 Water Quality Linkages – Greg Piorkowski (AF)

12:00 Lunch

Afternoon Concurrent Sessions

Facilities

1:00 Roller Compacted Concrete: Best Practices – Cody Metheral (AF)

1:20 Roller Compacted Concrete: Research Project – Dr. Steve Hendrick, Coaldale Veterinary Clinic

1:40 Phosphorus Filters – Ken Janzen (AF)

1:55 Manure Dryer Belts in Layer Barns - Lynda Miedema (AF)

2:15 Ammonia Emissions from Feedlots Sean McGinn, *Agriculture and Agri-Food Canada (AAFC)*

2:35 Flies – Tim Lysyk

3:00 Coffee

3:15 Decommissioning or Moving Facilities - Chris Ullmann (AF)

3:40 Catch Basin Management – Brian Koberstein (AF)

4:00 Groundwater Project: Results - Barry Olson (AF)

4:20 Closing Remarks

Application

1:00 Challenges of Manure Application - Jeff Schoenau, *(Unv. Sask)*

1:30 Vehicle Safety, Length, Loading - Rick Smith, *AB Transportation*

2:00 Manure: From Storage to Field - Karen Yakimishyn (AF)

2:20 Custom Applicator Associations in the USA – Kevin Erb, *University of Wisconsin (Unv. Wisc)*

2:20 Nitrogen Inhibitors in Manure - Guillermo Hernandez Ramirez, *University of Alberta*

3:00 Coffee

3:15 Apps and Tools – Trevor Wallace (AF)

3:40 Soil Health: Long Term Plots - Xiying Hao (AAFC)

4:00 New Manure Technologies in the USA – Kevin Erb *(Unv. Wisc)*

4:20 Closing Remarks



MANURE MANAGEMENT UPDATE 2019



TOPICS

Challenges of Manure Application
New Manure Technologies
Canadian Agricultural Partnership

Featuring:

Jeff Schoenau (University of Saskatchewan)
Kevin Erb (University of Wisconsin)

CCA credits available

Agenda and information available on
Ropin' the Web (www.agriculture.alberta.ca)

Online registration through Ag-Info Centre
<https://eservices.alberta.ca/manure-management-update-2019.html>
1-800-387-6030

JANUARY 14TH, 2019
LETHBRIDGE LODGE HOTEL

Alberta