

Recycling proponents and farmers demand a much needed agricultural plastics stewardship program

The image of farming and agriculture tends to be one of green pastures and fertile soil. We sometimes forget that farming is a large industry in Canada, consuming products and producing waste just like every other industry. Farmers rely on baler twine, bale wrap, silage wrap, feed bags and pesticides (that come in plastic containers) among other materials in order to produce, store and manage their crops effectively. The use of those materials does come to an end, and what we do with them has been on the minds of many groups for the past couple decades. The agricultural industry has increased its use of plastics and with that the need for post-use collection and treatment has continued to grow. Yet there is still no formal program in place to recycle or treat the used plastic anywhere in Canada.

In 2007, [Alberta Environment](#), the [Alberta Plastics Recycling Association](#) (APRA), the [Recycling Council of Alberta](#) (RCA) and other groups from the manufacturing sector, and retail established a working group to look into the best ways to recycle agricultural plastics (ag plastics). They conducted a pilot program over a two-year period and presented the results of their findings in a [report released in 2009](#).

The recommendations and findings from the pilot programs conclude that farmers and waste generators were keen on participating in the programs and wanted the pilot projects to continue. The working group established the need for provincial regulations, to offer the appropriate economic support, or establish a self-sustaining system, and guide the process. While progress has been made on a few fronts and pilot programs are still popping up across western Canada in the years since the study, a stewardship program is still needed to propel the system forward.



As with any project in its infancy, there are challenges. Kevin Kernaghan, Manager and Purchaser of Polyethylene and Polypropylene for [Merlin Plastics](#) (a downstream converter of plastics into reusable material) identifies one issue on the forefront of the dialogue, the economic volatility of the industry.

“When we have a turbulent economy it also makes it difficult to set a commodity price on plastics,” Kevin comments. “Collection costs are significant and the price on the sale of the recycled material isn’t always going to cover the associated costs.”

Christina Seidel, Executive Director at the RCA shares a similar illustration on a challenge the recycling industry faces.

“Most industries exist to answer a demand. In the recycling industry, we have a supply and we need to take steps to fill the gap and build a demand for the recycled material. It can be difficult to sort out that process and in this case, an agricultural plastics recycling program is not sustainable without guidance, in the form of a stewardship program.”

Other challenges associated with not recycling the ag plastics were discovered within and in addition the pilot project. Alberta is Canada's most urbanized province. More than 85 % of Albertans now reside in urban settings. Landfills dedicated largely to more common residential and commercial urban wastes are seeing an increase in agricultural plastics making their way into waste stream, taking up transfer bin capacity and landfill space that has been paid for by urban rate payers. Many of these ag wastes are problematic for operators as well. The materials tend to be bulky and difficult to compact. Additionally, the plastic twine is extremely robust and can wind its way around equipment. Some landfills are actively discouraging its disposal.

Another issue is the burning of plastics. Historically, farmers would burn the plastics, releasing harmful dioxins and furans into the environment, which are then ingested by livestock, people and contaminate soil. Burning still takes place today, though education on alternatives, such as recycling, has been a start to remove fuel from the fire.

Grant Cameron, the Executive of the Alberta Plastics Recycling Association has been involved with Alberta's working group on ag plastics since its inception. Cameron is pleased to talk about progress to date but worries that the collection of the plastics may proceed at a faster rate than the industry can process them. Since the end of the Alberta pilot project, around one million pounds of agricultural film alone has been collected and either processed and moved to market or collected and stockpiled, waiting for transport to processing facilities.

“We may be approaching a tipping point at which we are collecting faster than the processors ability to move it through,” remarks Grant.

“Tires, paint cans, oil jugs, electronics; all of these need stewardship programs and top-up funding to work,” explains Grant. “Agricultural plastics are in the same situation. Without a coordinated interprovincial stewardship program, with secure funding, we won't see much more capture and might even lose some ground on what we’ve already accomplished. Bridge

funding from some sources may be needed soon, though this would be a short term fix versus a long term solution."

For those involved in the initial pilot programs it is clear that all stakeholder groups need to be heard in order to build a program best suited for everyone and build a vision of what a stewardship program will look like. APRA, the RCA and other groups feel that regulation enacted through the government would be the most effective type of stewardship.

Ag plastic products are manufactured in different parts of the world, by Canadian companies and also international organizations. Many believe that regulations, with an imposed levy on the products are required in order to even the playing field. Funds raised would facilitate collection, transportation and some costs of recycling the material after it is used by the farmer. These levies would ultimately be passed on the farmer who is the end-user, though that is the case with all other stewardship programs. Ag plastics disposal would become a user-pay system.

Barry Friesen, the General Manager of [CleanFARMS](#), a not-for-profit organization committed to the responsible management and disposal of agricultural waste, expands on that idea and suggests that partially passing the payment to the farmer may offer incentive to return the used plastics. This model would work in a similar way to the bottle recycling program where the consumer pays a recycling fee at the time of purchase and gets that money back when they return the bottle at the recycling depot. The initial fee acts as an incentive for the consumer to return the bottle for recycling.

CleanFARMS' main focus since its inception in 2010 has been on the recycling of empty pesticide containers.

"The pesticide industry is unique in its stewardship actions," comments Barry. "Members of the stewardship group represent 98% of the industry. In this case, it is in the best interest of the industry to ensure safe and reliable management of the empty containers so they have stepped up to support recycling."

Barry believes that companies in other parts of the ag plastics industry want the opportunity to get involved. It is in their best interest to help make the rules instead of being regulated, and in establishing a system, they will also look for the most efficient, cost effective ways to recycle the materials.

One problem with this model is that not all industries work together as well or as easily as the pesticide retailers do. Herbicides and pesticides are regulated products in Canada. They require a license to apply. This makes the distribution network for both the chemicals and the containers transparent and the participants easy to find. Other agricultural plastics are not

regulated. Many domestic manufacturers are known but the first importer/distributor network is somewhat less well known. International industry, or a company half way around the world, gives little thought about what happens to the waste created at the end of their product's life cycle back here in Canada.

That being said, the issue again comes down to the establishment of a stewardship program and with that, financial support.

So far, other than participation in the working group, there has been little interest from the Alberta Government in the area of ag plastics recycling.

"I think we'll know where we stand with government support in a few months," notes Christina. "The new government is settling in and establishing their priorities. We're doing our best to demonstrate the need for funding and the establishment of a stewardship program."

While the pilot programs have been successful, if the government is looking for an example of successful stewardship programs, there are not many places to look. No province in Canada has a stewardship program for ag plastics. Alberta's neighbours to the east are leading the charge. Saskatchewan has been funding pilot programs and is aiming to have a stewardship program in place by May of 2014.

"When we move forward with the establishment of a stewardship program I think it will be a staged approach," comments Barry. "If the western provinces are able to work together it will be a huge benefit and opportunity to learn from one another."

Barry also points out that as the initiation of the programs continue, farmers will have a key role to play. It is the goal of CleanFARMS to establish advisory committees to interact with groups in different regions and also nationally as a way to consult, communicate and educate farmers.

Regardless of which province leads the charge on establishing a program the consensus is clear among those in the recycling sphere, we need to build on the momentum the pilot projects have created and move forward to establish a stewardship program.