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AGRICULTURE ENVIRONMENT INITIATIVES
AGRICULTURAL PLASTICS RECYCLING
WORKSHOP SUMMARY

THURSDAY, NOVEMBER 22, 2007
ABBOTSFORD, BC

Funding provided by:





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EXECUTIVE SUMMARY

In response to many enquiries from BC producers about agricultural plastic recycling, the BC Agriculture Council hosted a half-day workshop on agricultural plastics recycling on the morning of November 22, 2007. There were 45 participants from BC, Ontario and Washington and Oregon. Presentations about recent agricultural plastics recycling initiatives outside of BC, the plastics recycling business, and the current agricultural plastics recycling pilots in BC were well received. Information was shared by the presenters and audience members. A common theme was the willingness by the agricultural community to recycle farm plastics. The group also expressed common concerns with the economics and logistics of efficiently recycling agricultural plastics.

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1. INTRODUCTION

The [BC Agriculture Council](#) (BCAC) is an agricultural producers' organization that provides leadership in representing, promoting, and advocating the collective interests of all agricultural producers in the Province of BC. The BCAC fosters cooperation and a collective response to matters affecting the future of agriculture in the province and facilitates programs and service delivery for a number of programs that benefit the industry. One of these programs, the Agriculture Environment Initiatives (AEI) provides assistance in resolving environmental and wildlife issues with BC agriculture. Enquiries by agricultural producer organizations about the opportunities for recycling agricultural plastics resulted in the AEI Management Committee convening the Agricultural Plastics Workshop.

BC Ministry of Agriculture and Lands Waste Management Specialist, Mr. Gustav Rogstrand, and the AEI Agricultural Plastic Recycling pilot project managers, Janice Johnson and Jill Ackerman, assisted BCAC staff with the workshop invitations and agenda preparation. Invitations were sent to all member organizations of the BC Agriculture Council, local government Waste Managers, BC Ministry of Environment and BC Ministry of Agriculture and Lands. Agricultural plastic recycling industry representatives from the [Recycling Council of British Columbia](#) (RCBC) were also invited. All invitees were encouraged to extend the workshop invitation to any contacts interested in agricultural plastic recycling in BC. (See Appendix A – Workshop Registrants.)

George Hamilton, Chair of the AEI Management Committee welcomed the participants and explained that the purpose of the workshop was to share current information on the status of agricultural plastic recycling in BC. The BC Ministry of Environment provided written information about potential changes to BC's regulated products for 2008, with plastics being one of the products under review. (See Appendix B – BC Ministry of Environment Documents.) Background information was presented by Cathy Cirko from the [Environment and Plastics Industry Council](#) (EPIC), a council of the Canadian Plastics Industry Association headquartered in Ontario. Plastic recycling industry perspectives were delivered by industry members Ari Kastanis from Simply Plastics Solutions, Doug Surtees from Genesis Recycling, and Preston Horne-Brine from Silverdale Recycling. Janice Johnson and Jill Ackerman rounded out the speakers with presentations from the Agricultural Plastics Recycling Pilot of Okanagan-Similkameen and the Vancouver Island Twine and Agricultural Plastic Recycling Pilot projects, respectively. All speakers invited questions from the workshop participants following their presentations and during the panel discussion at the end of the morning. (See Appendix C— Speaker Bios.)

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2. PRESENTATIONS

a. Cathy Cirko

Cathy Cirko, Vice President of EPIC, spoke to the group about the Environment and Plastics Industry Council's involvement in agricultural plastic recycling in Canada. Ms. Cirko presented "Recycling of Hay Bale Wrap" (See Appendix D), providing an overview of pilot projects in Ontario, Alberta and PEI. From the pilots, EPIC developed the tool "Best Practices Guide for Agricultural Plastic Film". The guide informs farmers how to collect, clean and store plastic film, and provides information about potential markets. Ms. Cirko said that farmers who participated in the EPIC pilots were willing participants. An Ontario company, Think Plastics, is recycling agricultural plastics into baleboard, a material that contains about 70% used plastic film. The baleboard is marketed to farmers for use as fence posts, greenhouse footings, horse stalls, pig barns, and other outdoor uses. Ms. Cirko concluded her presentation with an explanation of agricultural plastic recycling in Norway. The presentation energized the workshop attendees, as many questions were raised from the examples of agricultural plastics recycling programs in other places.

b. Ari Kastanis

Ari Kastanis presented an overview of his business, Target Recycling, a vertically integrated recycling company going from chips to pellets to recycled films. Mr. Kastanis uses air and vibration to clean rigid and film plastics, having found the energy requirements for water washing uneconomic. Mr. Kastanis reported that 95% of recycled agricultural plastics are reusable when clean. Target has a 20,000 sq ft plant in Delta and processes up to truckload quantities, sorts, bales, grinds, extrudes to pellets and exports containers where applicable. Target has processed polypropylene (PP) Twine & PP Super Sacs and plans to reuse Styrofoam from the nursery industry when it is chipped, specialty bagged, and used for floatation devices. Mr. Kastanis is an advocate for the entrepreneurial spirit and cautioned the attendees about the shortcomings of using a Stewardship Model to move agricultural plastic recycling forward in BC; a non-sustainable mix with consumer waste streams and mini depots.

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c. Doug Surtees

Doug Surtees became part of the Agricultural Plastic Recycling community through Jill Ackerman's twine recycling project. Mr. Surtees works for Genesis Recycling, originally an electronics (computer) recycling business. Genesis is primarily a plastics broker and has the potential to collect and bale plastics. Genesis also has a polystyrene densifier that uses heat and compression to reduce the bulk of Styrofoam. Efficient collection is a challenge with the current lack of a system in place that guarantees the quality of the product. Mr. Surtees recommended that a catalogue of producers and processors be made available and encouraged the participants to use local recyclers. Mr. Surtees would also like to see a logistical model which would identify collection points, when and what volumes are available. Genesis currently collects agricultural plastic at its business site, 264th and Fraser. Mr. Surtees vision for Genesis' role in BC's agricultural plastic recycling community is to become a baling point and broker for the plastics.

d. Preston Horne-Brine

Preston Horne-Brine explained how Silverdale Recycling evolved from the shingle business, Fraser Cedar Products. Recycled plastics are being investigated as potential components of composite roofing products. Silverdale has developed and built a robust washing plant for recycled film and rigid plastics. Silverdale currently processes post-consumer, industrial and construction sources with some agricultural plastics, too. They accept truckload quantities though there currently is not much storage capacity. Silverdale has hosted Agricultural Plastic Collection events and has learned the following from these events:

1. Best practices for handling plastics must be developed and implemented. These practices include sorting, cleaning to a minimum standard, densifying to facilitate efficient collection, and what to do with the collected material (baling, storage, etc.)
2. Government involvement is needed to catalyze collection and defray collection costs
3. Agricultural producers, government and the recycling industry must work together to develop an agricultural plastic recycling system
4. Opportunities exist as Agricultural Plastic Recycling can reduce fossil fuel use and encourage economic development.
5. Agricultural Plastic Recycling will succeed if the maximum value from scrap plastics is realized.

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e. Janice Johnson

Janice Johnson presented the findings from the Regional District Okanagan-Similkameen's Agricultural Plastic Recycling pilot project. Ms. Johnson acknowledged the contribution of local, provincial and federal government funding made available to the pilot. Ms. Johnson stepped the workshop participants through the development of the agricultural plastic recycling program, from the preliminary development to the implementation phase and currently at the analysis and evaluation phase. The pilot has provided other jurisdictions with a template for developing their own agricultural plastic recycling program. Ms. Johnson's take-home message was that it is possible to practice safe plastic management within the agriculture community when recyclers, government and their landfills are onboard.

f. Jill Ackerman

Jill Ackerman discussed the development of agricultural plastic recycling on Vancouver Island to the current status of the Vancouver Island Twine and Agricultural Plastic Recycling Pilot. Ms. Ackerman focused on the human side of agricultural plastics recycling, emphasizing the commitment and relationship building required to launch a recycling program. The Vancouver Island pilot has many challenges with collection and transportation of plastics – Ms. Ackerman has setup drop-off and collection sites with commercial operations and also provides an on-farm collection service to some dairy, beef and greenhouse/nursery operations. The pilot project ends in June 2008 and will provide information about volumes and types of agricultural plastics available for recycling from Vancouver Island.

3. PANEL DISCUSSION

A panel discussion took place at the end of the workshop and the speakers and workshop participants worked to fill information gaps that arose from the presentations. Views from different agricultural industries and segments of the agricultural plastic recycling world were offered. The workshop formally adjourned after the panel discussion, however many participants took advantage of the networking opportunity at the end of the meeting.

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Notes from the panel discussion:

1. need for “fire souls”, individuals with a passion to begin a plastic recycling program
2. question of how to move from pilot projects to mainstream recycling programs
3. question of how to include golf courses, parks, school boards in plastics recycling
4. caution about residues in some agricultural plastics, e.g., fertilizer
5. quantity data is very important; estimate total tonnage of agricultural plastics needed
6. minimum tonnage required by collection businesses to offset fuel costs, time and labour
7. costs of cleaning and drying plastics are compared to landfill tipping fees
8. collection events need good promotion
9. best management practices need to be communicated in a variety of ways; meetings, written word (signage, brochures),
10. Product Stewardship model may have some application; important to make a distinction between Stewardship principles and how a stewardship model is delivered
11. important to document what agricultural producers are doing toward agricultural plastic recycling as greenhouse gas credits may apply retroactively
12. cost of virgin resins (through extraction of petrochemicals) compared to recycled plastics has a significant efficiency factor
13. leverage shown by Norwegians to encourage agricultural plastic recycling
14. society’s responsibility to use natural and national capital to good advantage

4. WRAP-UP & FOLLOW-UP

George Hamilton, Chair of the AEI Management Committee, closed the workshop by thanking the participants for attending and contributions to the discussions.

This summary document will be provided by the BC Agriculture Council and made available to participants and all interested parties.

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