



January 2022 Agricultural Plastics Pilot Program Report Grant Agreement: ESB-047715

Reporting period: July 1 to Dec 31, 2021 |



The pilot project is led by the multi-stakeholder Agricultural Plastics Recycling Group; funds were granted by the Government of Alberta and are administered by Alberta Beef Producers.

Table of contents

1. Introduction 3

 1.1. Program Key Highlights – July 2021 to December 2021 3

 1.2. Collection partners site list and map (as of December 2021) 4

2. Agricultural Plastics Recycling Group (APRG)..... 4

 2.1. APRG Executive Activities 4

3. APRG Communication Activities 5

4. Pilot 5

 4.1. Overall Pilot Quantities Collected 5

 4.2. Costs Per Tonne Estimates 2

 4.3. Next Steps 3

5. Cleanfarms Presentations and Discussions..... 3

6. Budget Details July 1 to December 31, 2021 4

Appendices

Appendix A – Collection Partners and Location (Map) 5

Appendix B – APRG Member Organizations 8

Appendix C – Quantities of Grain Bags and Twine Sent for Recycling 9

Appendix D – Letters of Support from Provincial Producer groups 10

Appendix E – Agricultural Plastics Recycling Group Quarterly Report – Q3 1

Appendix F – Agricultural Plastics Recycling Group Quarterly Report – Q4 1

1. Introduction

The Alberta Ag-Plastic. *Recycle It!* program is a three-year (2019 - 2022), government funded pilot project that helps farmers recycle used grain bags and twine. In addition to on-the-ground pilots that divert used grain bags and twine out of landfills and into new products, the program delivers a number of research projects that will help the promote transition of the pilot into a long-term, sustainable and self-funded program.

This report summarizes the key activities from the pilot that took place between July 1 to December 31, 2021, namely the operation of pilot collections.

The Alberta Ag-Plastic. *Recycle It!* program is led by the multi-stakeholder Agricultural Plastics Recycling Group (APRG). The APRG, a group made up of over 20 stakeholder organizations from sectors across Alberta, representing municipalities, producers, non-profits, recyclers and retailers among others, provides oversight of the program and a network to disseminate information and build support.

The program is being funded through a grant from the Government of Alberta and administered by Alberta Beef Producers.

Cleanfarms is the program operator, responsible for identifying and accessing end markets, handling program logistics including the collection and transportation to recycle the materials and leading the research projects.

We understand that there is a strong appetite for data and stakeholder feedback about the pilot. The pilot has operated for twenty-nine months (collection started in October 2019) and there is sufficient data to report on the majority of the plastic quantities collected.

1.1. Program Key Highlights – July 2021 to December 2021

Collection volumes for both grain bags and twine have steadily increased as the pilot unfolds. Compared to 2020 collections, in 2021 there was a 155% increase in grain bags and 886% increase in twine.

From continued stakeholder feedback, one of the perceived challenges to twine recycling is access to collection locations. Cleanfarms continued to work with other municipalities to fill geographic collection gaps in the province for twine-only collection sites.

Work with the County of Barrhead continued for the establishment of a new collection location for the municipality.

DBS Environmental Inc. (DBS) continued to distribute most collection bags to sites through the course of regular business. Some rolls of twine collection bags are shipped to collection sites via a courier service as required.

100 signs communicating the twine collection program were printed and posted at twine collection sites to support the awareness and information about the program.

Total collection partners: 33 with 90 collection locations for either grain bags or twine or both.

Table 1 – Alberta Pilot July 2021 to December 2021:

Material type	Tonnes collected		
	Total	Legacy material ¹	Pilot material
Grain bags	269	28	241
Twine	77	-	77
Total tonnage collected ²	346	28	318

¹Legacy material' is defined as grain bags and/or twine that were collected and stored onsite by the collection sites prior to becoming a pilot collection site.

²The total tonnage excludes disposal waste contained in legacy material.

1.2. Collection partners site list and map (as of December 2021)

See Appendix A for a list of collection partners and a map of their locations in Alberta.

Collection site summary

Total number of collection sites	90
Sites collecting grain bags only	1
Sites collecting twine only	38
Sites collecting grain bags and twine	51

2. Agricultural Plastics Recycling Group (APRG)

The multi-stakeholder APRG aims to meet in person/virtually to keep members informed on the pilot updates and allow for feedback and engagement from members on key topics. The APRG committee has a board meeting twice a year. An executive of five representatives is elected each year by the members and the executive meets monthly to interact with and oversee the program operator, advocate for a permanent program and report back to the group. All APRG members provide valuable input to the pilot from their unique perspectives and also play a key role in disseminating information back out to their members and partners.

The Committee mandate is to assist in the development of recommendations to manage ag plastics including:

- Promote ag plastics recycling actions and programs that are sustainable, and
- Implement the terms as set out in the Alberta ag plastics pilot program business plan.

A list of members of the APRG is included in Appendix B.

2.1. APRG Executive Activities

The executive met seven times during this reporting period.

APRG activities included:

- Meetings with Agriculture, Forestry, and Rural Development and Alberta Environment.
 - Minister Nixon (August), Minister Dreeshen (October), and Minister Horner (December).
 - Minister Horner and the executive discussed activities to educate producers about recycling and the value of a long-term solution to ag plastics. We provided them letters of support from various agriculture groups who are in supporting of a permanent program.

- Discussions reiterated the importance of keeping the momentum of recycling grain bags and twine through ongoing engagements and the future of a permanent program managed through EPR.
- Attendance at the Rural Municipalities of Alberta tradeshow (November).
- Advanced conversations with stakeholders to explain the APRG's long-term plans for a permanent program, answer questions about the concept and request letters of support for a permanent program (For more information see communication activities below).
Letters of support were received from:
 - Agricultural Service Board Provincial Committee
 - Alberta Beef Producers
 - Alberta Cattle Feeders Association
 - Alberta Milk Producers
 - Alberta Wheat Commission
 - Rural Municipalities Association
 - Alberta Canola
 - Alberta Pulse Growers
 - Alberta Barley
 - AB Seed Growers
 - AB Hemp Association
- Provided editorial comments and released the Ag Forward Newsletter series with Cleanfarms.
 - July – Ag Forward – managing on-farm plastics
 - August – How ag plastics recycling works in Alberta – challenges and opportunities
 - October – Managing ag plastics long-term – can product suppliers play a bigger role
- Twine collection signs were printed and posted at twine collection sites.

3. APRG Communication Activities

The APRG believes it is important to promote the ag plastics recycling pilot widely. In December the executive connected with communications leads from several commodity groups (the Alberta Association of Agricultural Fieldmen, Alberta Service Board Provincial Committee, Alberta Beef, Alberta Canola, Alberta Milk, Alberta Pulse, Alberta Wheat Barley, and the Cattle Feeders Associations). The purpose was to learn how they provide information to their members, what media sources are read by members, and what tools the APRG can provide to aid in member education. As a result, two documents are being created including an acronym and glossary guide and a media package. A full communications plan is being completed early 2022.

During our meetings with members of the Government, they informed the APRG they want to hear from farmers on their experiences participating in the pilot. We plan to reach these individuals through the commodity group connections, but we also connected with the collection sites to ask if they can provide any introduction to users that would be willing to share their experiences. The goal is to provide a list of farmers and testimonials as part of the media package to aid journalists in publishing stories that's of interest to their audience.

4. Pilot

The background for how the pilot is intended to operate can be found in the *December 2020 Agricultural Plastics Pilot Program Report*.

4.1. Overall Pilot Quantities Collected

A total of 1,951 tonnes of material has been collected since the program's inception. 23 per cent of the volume picked up during the reporting period was considered legacy material.

Table 2 – Alberta Pilot October 2019 through December 2021

Material Type	Tonnes Collected		
	Total	Legacy Material ¹	Pilot Material
Grain bags	1740	419	1320
Twine	211	38	174
Total tonnage collected ²	1951	457	1494

¹Legacy material' is defined as grain bags and/or twine that were collected and stored onsite by the collection sites prior to becoming a pilot collection site.

²The total tonnage excludes disposal waste contained in legacy material.

Legacy material was transported to end markets under the pilot program. 'Pilot material' is defined as grain bags and twine that have been collected after site agreements were executed. Please see Appendix C for a detailed breakdown of the quantity collected by the collection sites.

As of this report, two of the original twenty collection partners have yet to collect enough grain bags to constitute a full truckload for recycling; one of the sites has a partial load, while the other (MacKenzie Regional Waste Landfill) is in a transition phase with site management.

Limited locations for twine drop off is a perceived barrier amongst farmers. Cleanfarms continues to work with other municipalities to fill geographic collection gaps for twine-only collection.

4.2. Costs Per Tonne Estimates

Table 3 provides a breakdown of the current direct costs for the collection and recycling of grain bags and twine for 24 months of pilot collections.

Table 3 – Grain Bag and Twine Direct Cost Per Tonne Estimate (January 2020-December 2021)

AB Ag Plastics Recycling Pilot Program - Grain Bag Direct Cost/Tonne Estimate		Twine Direct Cost/Tonne Estimate
Revenue	Jan '20 - Dec '21	Jan '20 - Dec '21
<i>Recycling Revenue</i>		
Revenue from Marketing Materials	85,526	126
Total Recycling Revenue	\$ 85,526	\$ 126
<i>Expenses</i>		
<i>Collection Costs</i>		
Contractor Expenses	93,884	11,447
Incentive Payments	74,298	3,644
Total Collection Expenses	\$ 168,182	\$ 15,091
Net Collection Cost	\$ 82,656	58,380
Total Grain Bags Collected (kg)	1,431,566	\$ 258.49
Cost per Tonne	\$ 57.74	\$ 132.75

The cost per tonne calculation is important for forecasting logistical costs and is part of the final calculation to determine an appropriate Environmental Handling Fee (EHF) for a permanent program. It should be noted that the cost per tonne calculations cannot be used as a direct representation of a potential future EHF, multiple other budgetary items which are beyond the scope of these estimates are required as part of an EHF calculation.

4.3. Next Steps

- The APRG and Cleanfarms are compiling a media package for use by commodity groups. This package will include the Ag Forward newsletters, FAQ documents, an acronym glossary, and farmer story ideas and contact information for media.
- Working on a grant extension with the Government and the Alberta Beef Producers (proposed extension until November 2023) and collection site contract extension to August 2023).
- Cleanfarms will work with collection sites to monitor the quantities stockpiled for efficient collection and consider additional sites for twine collection.
- A top priority for the APRG includes communication outreach to ag-plastics retailers about the program. This group will be a key stakeholder assuming the Government conducts consultation about including ag plastics in provincial Extended Producer Responsibility (EPR) legislation.
- Continued engagement with individual farmers and commodity groups is planned in 2022 as we secure more letters of support (Appendix D) as well as look for more media coverage about the pilot program through commodity group news and magazine publications.

5. Cleanfarms Presentations and Discussions

Cleanfarms had two in person site visits in October with the Vulcan Waste Transfer Station and the Foothills Regional Landfill & Resource Recovery Centre. There were also two webinars with pilot sites including Rocky View County and the Mountain View Agricultural Services Board.

6. Budget Details July 1 to December 31, 2021

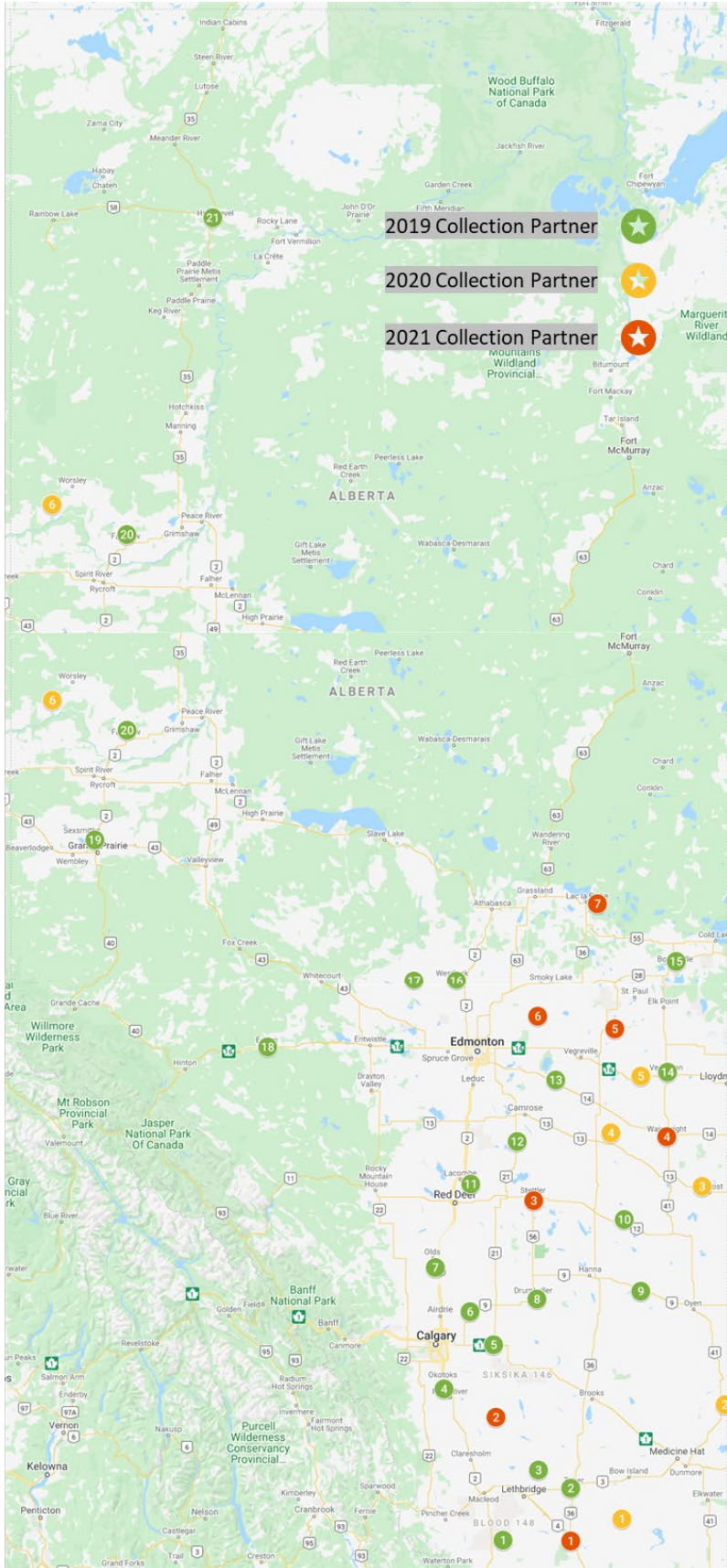
Balance spent for this period \$ (107,142)
 Balance as of Dec 31, 2021 \$ (647,857)

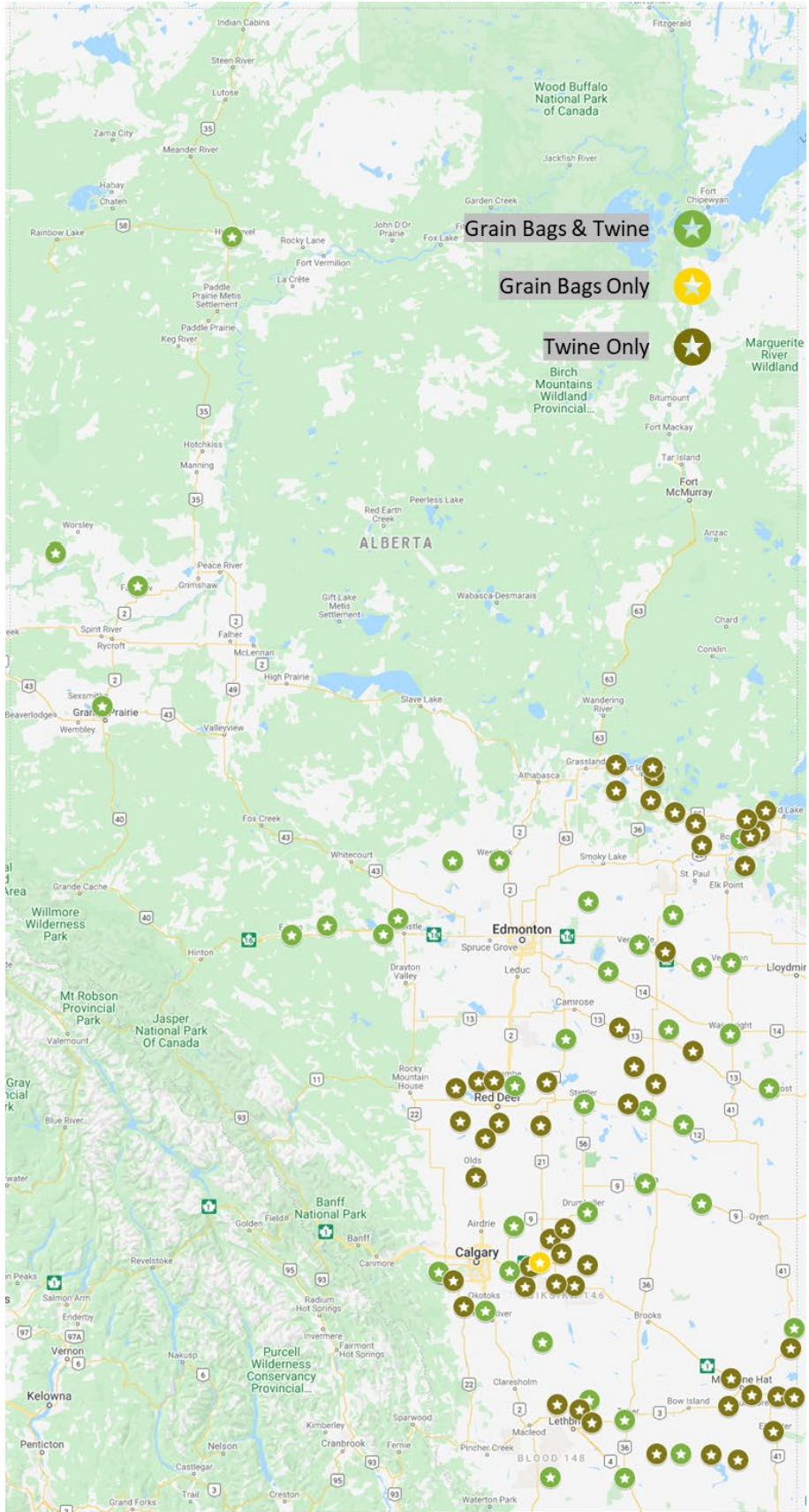
Revenue	July-September	October-December
<i>Funds Transferred to Cleanfarms from Alberta Beef Producers</i>		
<i>Studies</i>	-	-
<i>Communications</i>	\$ 1,114	\$ 6,215
<i>Net Collection Costs</i>	\$ 769	\$ 52,139
<i>Program Admin (Cleanfarms)</i>	\$ 12,500	\$ 12,500
Total Revenue from Alberta Beef Producers	\$ 14,382	\$ 70,853
<i>Recycling Revenue</i>		
<i>Revenue from Marketing Materials</i>	\$ 18,786	\$ -
Total Program Revenue	\$ 30,169	\$ 70,853
Expenses		
<i>Studies</i>		
Ag Waste Characterization Study	-	-
Stakeholder Groups Survey	-	-
Market Analysis	-	-
<i>Communications</i>		
Brand Development	\$ 1,114	\$ 6,215
Printing Costs	-	-
Design Costs	-	-
<i>Collection Costs</i>		
Contractor Expenses	\$ 12,147	\$ 39,806
Collection Bags	-	\$ 235
Incentive Payments	\$ 4,408	\$ 12,098
Total Collection Costs	\$ 16,555	\$ 52,139
<i>Program Admin (Cleanfarms)</i>	\$ 12,500	\$ 12,500
Total Cleanfarms and Operational Expenses	\$ 30,169	\$ 70,853
<i>Committee</i>		
Secretariat - APRA	\$ 1,728	\$ 2,853
Technical Oversight - RCA	\$ 322	\$ 1,218
<i>ABP Accounting/Grant administrator</i>	-	-
Total Committee and Administrator Expenses	\$ 2,040	\$ 4,071
Total Program Expenses	\$ 32,218	\$ 74,924

Project inception until December 31, 2021
 Expenses \$ (584,573)
 Interest earned (since inception) \$ 15,127
 Balance \$ 647,857

Appendix A – Collection Partners and Location (Map)

Site Name	County or MD	Site No. on Map	Year Joined as Collection Partner
Cardston County Composting Yard	Cardston County	1	2019
MD of Taber Operations and Maintenance Building	MD of Taber	2	2020
Iron Springs Transfer Site	Lethbridge County	3	2021
Foothills Regional Landfill & Resource Recovery Centre	M.D. of Foothills	4	
Wheatland County Agriculture Service Board Shop	Wheatland County	5	
Irricana Transfer Site	Rocky View County	6	
Mountain View County Ag Shop Twine Collection	Mountain View County	7	
Drumheller & District Regional Landfill	Drumheller	8	
Youngstown Regional Landfill	Special Areas 2, 3 & 4	9	
Coronation Transfer Station	County of Paintearth	10	
Prentiss Landfill	Lacombe County	11	
West Dried Meat Lake Regional Landfill	Camrose County	12	
Ryley Landfill	Beaver County	13	
Vermilion Waste Transfer Station	County of Vermilion River	14	
Municipal District of Bonnyville Public Works Shop	MD of Bonnyville	15	
Westlock Regional Landfill	Westlock County	16	
County of Barrhead Public Works Shop	County of Barrhead	17	
Edson and District Recycling Society	Yellowhead County	18	
Clairmont Landfill	County of Grande Prairie	19	
North Peace Regional Landfill	MD of Fairview	20	
MacKenzie Regional Waste Landfill	Mackenzie No. 23	21	
Foremost Transfer Station - South Forty Waste	County of Forty Mile No. 8	1	
Hilda Transfer Station	Cypress County	2	
Provost Regional Landfill	MD of Provost	3	
Flagstaff Waste Regional Landfill	Flagstaff County	4	
Vegreville Landfill	County of Minburn	5	
Cleardale Transfer Station	Clear Hills County	6	
County of Warner Ag Service Board Shop	County of Warner	1	
Vulcan Waste Transfer Station	Vulcan County	2	
Stettler County Operations Shop	Stettler County	3	
Wainwright Regional Landfill	MD of Wainwright	4	
Two Hills Regional Landfill	County of Two Hills	5	
St. Michael Landfill	Lamont County	6	
Beaver Lake Landfill	Lac La Biche County	7	





Appendix B – APRG Member Organizations

Organization	Sector/Representation
Agricultural Service Board	Board Representation
AB Association of Agricultural Fieldmen	Agricultural 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
Berry BPI Agriculture	Material Manufacturer
Rural Municipalities of Alberta (RMA)	Municipalities
South/Central Waste Collaboration Group	Rural Municipalities
TAMA Canada	Retailer

APRG Executive include:

Assar Grinde, Alberta Beef Producers; Christina Seidel, Recycling Council of Alberta; Warren Noga, Rural Municipalities of Alberta; Al Kemmere; Dean Hubbard, Alberta Wheat Barley; Stacey Schaub-Szabo, Alberta Plastics Recycling Association

Appendix C – Quantities of Grain Bags and Twine Sent for Recycling

Grain Bags and Twine Sent for Recycling Oct 2019 - Present					
Site Name	County	Legacy Material (kg)		Pilot Collection (kg)	
		Grain Bags	Twine	Grain Bags	Twine
Ryley Landfill	Beaver County	-	-	21,590	170
Youngstown Regional Landfill	Special Areas 2, 3 & 4	-	-	-	-
Cardston County Composting Yard	Cardston County	-	-	7,945	-
Clairmont Landfill	County of Grande Prairie	22,020	-	9,350	-
Vermilion Waste Transfer Station	County of Vermilion River	9,780	-	54,925	370
Iron Springs Transfer Site	Lethbridge County	-	-	87,425	8,330
Drumheller & District Regional Landfill	Drumheller	-	6,320	83,638	4,900
Foothills Regional Landfill & Resource Recovery Centre	M.D. of Foothills	-	-	76,870	-
Prentiss Landfill	Lacombe County	-	7,110	69,400	4,576
MacKenzie Regional Waste Landfill	Mackenzie No. 23	-	-	-	-
Mountain View County Ag Shop Twine Collection	Mountain View County	N/A	-	N/A	5,706
Municipal District of Bonnyville Public Works Shop	MD of Bonnyville	10,670	-	24,010	1,580
MD of Taber Operations and Maintenance Building	MD of Taber	-	-	82,100	3,835
Neeralta Manufacturing & Westlock Regional Landfill	County of Barrhead & Westlock County	-	2,000	-	8,284
North Peace Regional Landfill	MD of Fairview	57,870	-	95,290	1,110
Coronation Transfer Station	County of Paintearth	-	-	13,280	1,902
Irricana Transfer Site	Rocky View County	64,139	7,800	126,520	9,964
West Dried Meat Lake Regional Landfill	Camrose County	49,250	1,250	76,990	922
Wheatland County Agriculture Service Board Shop	Wheatland County	-	-	179,203	458
Edson & District Recycling Society	Yellowhead County	37,860	-	24,830	-
Cleardale Transfer Station	Clear Hills County	-	-	-	-
Foremost Transfer Station - South Forty Waste	County of Forty Mile No. 8	-	-	29,440	-
Mannville Waste Transfer Station	County of Minburn	33,060	12,970	73,020	4,580
Hilda Transfer Station	Cypress County	11,520	-	4,810	-
Flagstaff Waste Regional Landfill	Flagstaff County	-	-	61,960	435
Provost Regional Landfill	MD of Provost	33,060	-	6,650	279
County of Warner Ag Service Board Shop	County of Warner	-	-	19,100	-
Vulcan Waste Transfer Station	Vulcan County	-	-	42,350	-
Beaver Lake Landfill	Lac La Biche	N/A	493	N/A	-
Two Hills Regional Landfill	County of Two Hills	-	-	-	-
Wainwright Regional Landfill	MD of Wainwright	18,290	-	-	-
Stettler County Operations Shop	County of Stettler	-	-	-	-
Horn Hill Transfer Station	Red Deer County	-	-	-	979
Farm (non-pilot site)	AB Farms	-	-	49,550	-
Hay Processing Plants (non-pilot sites)	Southern Alberta	N/A	-	N/A	115,128
Blueberry Transfer Site (non-pilot site)	Saddle Hills County	27,840	-	-	-
Wainwright (non-pilot site)	MD of Wainwright	44,115	-	-	-
Totals		419,474	37,943	1,320,246	173,508
Total Grain Bags		1,739,720	Total Twine		211,451
Total Grain Bags and Twine					1,951,171

Appendix D – Letters of Support from Provincial Producer groups

The letters attached are from the following organizations:

- Agricultural Service Board Provincial Committee
- Alberta Beef Producers
- Alberta Cattle Feeders Association
- Alberta Milk Producers
- Alberta Wheat Commission
- Rural Municipalities Association (RMA)
- Alberta Canola
- Alberta Pulse Growers
- Alberta Barley
- AB Seed Growers
- AB Hemp Association

Appendix E – Agricultural Plastics Recycling Group Quarterly Report – Q3

Appendix F – Agricultural Plastics Recycling Group Quarterly Report – Q4

