



ANNUAL REPORT

2019

2019 IN REVIEW —
HELPING CANADIAN
FARMERS STEWARD
THEIR LAND

2019 PROGRAM
HIGHLIGHTS



Contributing to Cleaner Farm Communities in Canada

The agricultural waste management programs that Cleanfarms proudly documents in this annual report for 2019 have been made possible through the ongoing stewardship and funding support of our member companies. Together they comprise manufacturers, distributors and retailers of crop protection products, fertilizer, seed, livestock/equine medications and bale wrap, sheeting and grain bags.

CLEANFARMS MEMBERS

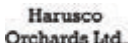


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Promoting Agricultural Sustainability

WHO WE ARE

Cleanfarms is a non-profit industry stewardship organization committed to environmental responsibility through the proper management of inorganic agricultural waste. Cleanfarms' programs are available across Canada and have been emulated internationally. The success of these programs highlights the commitment of manufacturers, distributors, retailers, municipalities, provinces and farmers to agricultural environmental responsibility and sustainability.

VISION

Cleanfarms contributes to a healthier environment and a sustainable future by recovering and recycling agricultural and related industry plastics, packaging and products.

On the Cover:

In 2019, the ubiquitous 23L and under plastic pesticides and fertilizer container program celebrated 30 years. In the photo, Gene Easterby (left) and Aiden McBride (right) help drop off containers at Nutrien Ag Solutions, Moose Jaw, Saskatchewan.



Taking Steps for a More Sustainable Future

Reflecting on 2019, it seemed that whenever Cleanfarms members and staff got together, the conversation invariably turned to one of three topics that affected our ag-waste recovery and management last year.

First was the weather. Second was the increased interest in this country and elsewhere in the use and management of single use plastics, some of which exist in agriculture. Third was markets for recycled commodities and the impact of a reduced demand for post consumer recycled resin.

All three of these impacted our ag-waste recovery and recycling stewardship business in 2019.

As we all know, there is not much we can do to combat Mother Nature. Last year, she delivered challenging weather in the spring and fall that affected farmers' ability to seed and harvest. And that left our collection sites and contractors working together with farmers to manage ag-plastic material collection in a compressed timeframe.

The result was that when it came to collecting small plastic containers for recycling, we held our own in 2019. Recovering small containers for recycling remains a core Cleanfarms imperative, so we will work harder in 2020 to get empty containers returned.

There is certainly good news in the non-deposit bulk pesticide and fertilizer totes and drums sector. Volumes collected soared by 25% over 2018 numbers. That result, combined with the resounding response to recycling grain bags in Saskatchewan, was encouraging, indeed.

Plastic products like containers and grain bags are essential tools in agriculture. Plastics enable our member companies to deliver chemical products to growers

safely and efficiently, and provide an important storage option. Cleanfarms has a strong reputation when it comes to recycling empty containers and now grain bags. Good stewardship of these ag-waste materials, integral to our members' operations, includes good end-of-life management of the plastics we use. For that reason, Cleanfarms continuously looks for ways we can improve stewardship outcomes.

This encompasses recycling more material and also talking to our members about newer initiatives like 'design for recycling', meaning the package or product is specifically designed so it can be more easily and fully recycled, and there are ready markets for the materials. Innovation has always been essential to our industry and initiatives like this would strengthen our track record on a number of fronts.

One important aspect of design for recycling is the potential to include post-consumer recycled plastic in our packaging and products. Ideally, recycled plastic resin could be used to make single use containers and bags. It's the simplest and most obvious contribution we can make to a circular economy.

Plus, and this brings us to our third point, this would drive investment in recycling and end markets, and repurpose manufacturing in Canada that would create economic benefit, resource recovery sustainability and jobs.

For Cleanfarms members, this step could mean a more stable, economically viable and sustainable stewardship loop. We have the responsibility to drive this change. On behalf of members, Cleanfarms Board and staff are contributing to important conversations about these issues and to developing new management solutions for essential agricultural plastics.

"Cleanfarms has a strong reputation when it comes to recycling empty containers and now grain bags."

We can't close the year off without a nod to some of our new partners that came on board with the Cleanfarms team in 2019. We've entered into collaborative relationships with a wide variety of stakeholders in Alberta under the 'Alberta Ag-Plastic. Recycle It!' pilot, as well as with new partners at Environment and Climate Change Canada as we undertake a benchmark national ag-waste study. These new projects will deliver long-term benefits to Canadian farmers.



Brad Orr
Marketing Leader Canada
Corteva Agriscience™
Chair, Board of Directors



Barry Friesen, P.Eng.
General Manager
Cleanfarms Inc.



2019 in Review — Helping Canadian Farmers Steward Their Land

Cleanfarms is the only industry stewardship organization recovering agricultural inorganic waste materials in Canada for recycling or environmentally responsible disposal. From coast to coast, we develop and deliver a suite of five permanent programs each shaped to operate most effectively in the various agricultural and geographical regions of the country.

Cleanfarms' permanent programs include recovering for recycling or safe disposal empty, single-use plastic pesticide and fertilizer containers; non-deposit bulk pesticide and liquid fertilizer totes and drums; seed, pesticide and in some regions fertilizer bags; grain bags; and unwanted, old, often obsolete pesticide and livestock/equine medications.

While these materials are essential tools around modern farms, during the growing and harvesting seasons these containers and other materials quickly accumulate as ag-waste. But as a result of Cleanfarms'

industry-funded programs, farmers have options to manage the waste helping them to be responsible stewards of their land.

To operate successful recovery and recycling programs across the country, Cleanfarms is reliant on the support and participation of a wide range of partners from Cleanfarms members to retailers, municipalities and, of course, farmers. We thank them all for supporting and participating in our programs.

In this 2019 Cleanfarms Annual Report, we are pleased to provide the highlights of another remarkable year.

BY THE NUMBERS

Collected since inception (numbers rounded)

131.5 million containers

Pesticide and fertilizer containers (23L and under)

183,400 drums/totes

Non-deposit bulk pesticide containers

1,729,000 kg

Empty seed, pesticide and fertilizer bags

47,800 kg

Unwanted and old livestock/equine medications

3.4 million kg

Unwanted and old pesticides

3,700,000 kg

Grain bags, film and twine



BY THE NUMBERS 2019

5,464,470 containers

Empty pesticide and fertilizer
containers returned

55,369 totes and drums

Non-deposit bulk containers collected

429,288 kg

Empty seed, pesticide and fertilizer
bags collected

214,618 kg

Unwanted and old pesticides collected

5,842 kg

Unwanted and old livestock/equine
medications collected

2,306,710 kg

Grain bags, film and twine collected



















Back row, standing: Lachie McKinnon*, Paul Lake, Darren Palendat, Terry McMillan, Pierre Petelle, Barry Friesen (Cleanfarms General Manager). **Back row, sitting:** Sébastien Chénard, Howie Kroon. **Front, sitting:** Phil Bailey, Trish Jordan, Brad Orr (Chair). **Absent:** Paul Hoekstra, Mei Chung-Lewis, Lana Zdunich, Boyd Bergstrom. *resigned in 2019

Investment in Healthy Farmland

Cleanfarms’ members supply Canadian farmers with the products and packaging that our programs manage. Through their membership in Cleanfarms, they are making a commitment to and an investment in healthy farmland now and in the future. The Board of Directors provides their experience, skills and oversight to ensure the ongoing success of Cleanfarms programs.

Cleanfarms Board of Directors – 2019

| | | | |
|--|---|--|--|
| Phil Bailey  <small>Canada's Seed Partner</small> | Mei Chung-Lewis  | Paul Lake  | Darren Palendat  |
| Boyd Bergstrom  | Paul Hoekstra  | Lachie McKinnon*  | Pierre Petelle  |
| Sébastien Chénard  | Trish Jordan  | Terry McMillan  | Lana Zdunich  |
| <i>(*resigned in 2019)</i> | Howie Kroon  | Brad Orr (Chair)  | |



Meet Darren Palendat

**Global Product Strategy Manager
Strategic Cereal Herbicides/Marketing
ADAMA Agricultural Solutions Ltd.**

Doing what's right for the social good is an important motivator for Darren Palendat, and that's why he agreed to step forward 10 years ago to become a founding member of the Cleanfarms Board of Directors.

"To be honest, I wasn't sure it was the place for me when I was approached to be on the board. I thought there was a good possibility that politics and self-interests could overshadow the potential good the organization was meant to do." But he found out quickly it was the opposite.

"From the start, people rolled up their sleeves and got to work putting an industry stewardship vision in place for Cleanfarms," he says.

And over the decade he has been proud to have had a role in Cleanfarms' "significant transformation" from its primary focus on pesticide containers and unwanted, obsolete pesticides to a multi-program stewardship organization managing a range of ag-waste materials at end of life.

"With each new program, Cleanfarms takes a step toward a more sustainable future in Canadian agriculture that has allowed our industries to self-regulate our stewardship, develop a cost effective way to manage ag-waste products, and packaging and maintain a social license to operate, all for the greater social good," he says.

In his view, the Cleanfarms stewardship model engages growers and the value chain of ag-product manufacturers, distributors and retailers in a symbiotic relationship. Each stakeholder plays a part in creating, delivering and servicing products that are critical for growers' operations to succeed.

In May 2020, Mr. Palendat will retire from the Cleanfarms Board as he continues his transition to a European post with ADAMA.



2019 Program Highlights

At Cleanfarms, our goal is to give Canadian farmers new opportunities to strengthen the environmental stewardship of their land and waterways. We do that by developing management programs that continuously push the envelope of how ag-waste can be managed to the benefit of farm communities and the environment. Our aim is to help our team, partners and farmers work toward realizing objectives of a circular economy.

Leaders in Agricultural Waste Management

Our focus is on two imperatives: to create practical, cost effective ag-waste management programs for farmers and to support the stewardship commitments of our members.

To do that, Cleanfarms has built a team of experienced, innovative thought-leaders who understand the agricultural landscape and how ag-waste management can function effectively and cost efficiently within that world.

The ability to implement the ideas and initiatives relies on an outstanding network of distributors and ag-retailers, municipalities, waste contractors and haulers and like-minded organizations that share a common goal of helping farmers access our programs.

2019 saw significant evolution in waste management in the agricultural sector, bringing sustainability, a circular economy and zero waste closer to reality.



In 2019, Cleanfarms:

- Celebrated the 30th year of collecting small plastic containers 23 litres and under to be recycled into new products like drainage tile for use back on the farm. This recycling program is unique in that it has continued for three decades, primarily as a voluntary stewardship initiative.
- Operated the first full year of grain bag recycling under a provincial extended producer responsibility regulation in Saskatchewan with the non-refundable Environmental Handling Fee (EHF) in place. Saskatchewan farmers have demonstrated overwhelmingly that they are using this recycling program and are willing to support it.
- Continued the government-funded, multi-material collection pilot program in Manitoba to recover silage and bale wrap, twine and grain bags for recycling and commenced a phased consultation process to discuss with farmers, municipalities, the ag-retail sector and other stakeholders how to achieve a self-sustaining province-wide program.
- Extended the successful seed and pesticide bag recovery program operating in Eastern Canada, into the Prairie provinces, as pilots to assess farmer participation and operational scope.
- Conducted year one of a pilot project in the MRC des Maskoutains in the Saint-Hyacinthe Region of Quebec to develop a better understanding of ag-plastics usage in the area and determine the efficiency variables in operating a multi-material recycling program for ag-waste. The aim is to take the program province-wide under an extended producer responsibility framework.
- Secured funding from the federal Ministry of Environment and Climate Change Canada to undertake a first-of-its-kind national scale research project that will provide critical information to help agricultural plastic producers and Canadian farmers boost their ability to recycle agricultural plastic waste.



Empty Small Container Recycling Program

2019—Cleanfarms Celebrates 30 Years of Recycling Plastic Pesticide Jugs

In 2019, Cleanfarms marked the 30th anniversary of our signature recycling program for small, 23 litre and under, single-use plastic pesticide and fertilizer jugs.

Thirty years ago, one of the first voluntary stewardship programs in Canada for used, empty 23L and under pesticide containers started in Alberta.

In 2010, Cleanfarms was established to take over and run the program. Cleanfarms introduced a broader range of programs to collect farm waste materials such as empty seed and fertilizer bags; silage wrap; large one-way pesticide and fertilizer drums and totes; twine; and grain bags. We expanded existing programs for pesticide bags and unwanted and obsolete pesticides and livestock/equine medications. The overall intention of these ag-waste recovery

programs was to maximize recycling, dispose of non-recyclable materials safely, and divert as much as possible from landfill and burn/bury piles to help farmers run environmentally responsible, sustainable operations.

“We’re excited that we’ve been able to increase the recovery of empty containers thanks to Canadian farmers and more than 1,000 ag-retail and municipal collection sites across the country,” says Barry Friesen, Cleanfarms general manager.

Recovered agricultural plastics are recycled into new products such as farm drainage tile, flexible irrigation pipe and plastic bags.



Pesticide and Fertilizer Container Recycling Program

(23L and under, empty)

2019 overall collection numbers showed a slight decrease over 2018 (down about 5%), likely due to persistent adverse weather conditions in the spring and fall; however, recovery numbers, which are averaged out over three years, remain steady in the approximately 65% range. Cleanfarms’ signature program and the one for which it is best known coast to coast is our Small Pesticide and Fertilizer Container program for agricultural plastic containers 23 litres and under.



BY THE NUMBERS

Empty Small Pesticide and Fertilizer Containers (23L and under)

TOTAL CONTAINERS COLLECTED: **5,464,470**

By Province:

| | |
|------------------|------------------|
| British Columbia | 158,932 |
| Alberta | 1,295,100 |
| Saskatchewan | 1,807,665 |
| Manitoba | 519,419 |

| | |
|---------------|------------------|
| Ontario | 1,021,918 |
| Quebec | 505,193 |
| New Brunswick | 48,452 |
| Nova Scotia | 22,279 |
| PEI | 85,512 |



Non-Deposit Bulk Container Collection Program:

Non-deposit bulk pesticide and liquid fertilizer containers are described as totes and drums ranging in size from more than 23 litres to 1,000 litres. The use of these containers is growing more popular and the number returned to retailers increased in 2019.



BY THE NUMBERS

NON-DEPOSIT BULK
CONTAINERS RECOVERED
55,369

25%

increase
over 2018



Meet Aleesha Hansen

**Office Administrator
and Safety Coordinator
Scotland Agromart
Scotland, Ontario**

‘Sustainability’ is a favourite word around the Scotland Agromart, according to Aleesha Hansen, a member of the family-owned and operated ag-retailer. To them, their operation is all about the environment and being sustainable. As Aleesha says, “we don’t want ag-waste plastics going to landfill. We see it as a priority to get them recycled. It is a part of our social contract with farmers to help them operate sustainably.”

Located near Brantford, Ontario, this Agromart helps local farmers grow ginseng and tobacco, fresh market vegetables as well as corn, soybeans and wheat. About 80% of the nearby farms are family owned averaging 500 acres. Scotland Agromart is often one of the first ag-retailers to get involved in new initiatives and has a strong relationship with Cleanfarms. This ag-retailer holds the record in Ontario for collecting the highest number of empty plastic pesticide and fertilizer jugs for recycling.

While the Agromart team uses Cleanfarms’ promotion and education materials, Aleesha says area growers need little encouragement to participate in sustainability programs.

“Through spring, summer and fall we work with farmers to get empty containers back. They know the routine to triple rinse,

take the caps and pamphlets off, put the empties into the plastic bags that Cleanfarms provides and throw the bags right in the trailers we keep for that purpose,” Aleesha says.

Scotland has two tractor trailers to hold the full recycling bags. For the past five years, the Agromart has been getting container collection once or twice a week from May to October because farmers take the program so seriously.

“Farmers really like the container collection program. They know it’s beneficial to them. Sustainability is always part of conversation around the coffee pot,” Aleesha says, adding, “Sustainability is 10 out of 10 in terms of importance and should play a role in every piece of the producer puzzle.”



Unwanted Pesticides and Livestock/ Equine Medications Collection Program

Cleanfarms is committed to improving the health and well-being of the environment by ensuring the highest and safest practices to manage the agri-industry's products and packaging at end of life. The Unwanted Pesticides and Livestock/Equine Medications Collection Program gives farmers across Canada peace of mind that the materials are disposed of responsibly, helping them to keep their farm properties clean.

The unwanted pesticides collection is part of the plant science industry's commitment to responsible lifecycle management of its products. The products accepted are labeled with a Pest Control Product number and used primarily in agricultural settings.

Cleanfarms entered into a partnership with the Canadian Animal Health Institute (CAHI) in 2014 to collect old and obsolete livestock/equine medications along with unwanted pesticides.

The Cleanfarms collection program rotates to regions in all provinces across Canada every three years. In 2019, we held collection events in 79 locations in Peace Region, Northern Alberta, Manitoba, Ontario and Newfoundland. The materials collected each year are transported by a licensed waste hauler to a high temperature incinerator facility for safe disposal. We encourage farmers to store unwanted, old pesticides and obsolete medications safely until the collection program rotates into their province or region.



BY THE NUMBERS

Unwanted Pesticides – kg recovered

| | | | |
|---------------------------------|---------------|--------------|----------------|
| British Columbia (Peace Region) | 5,549 | Manitoba | 51,107 |
| Alberta (Peace Region) | 17,611 | Ontario | 102,897 |
| Alberta (North) | 36,181 | Newfoundland | 1,273 |

TOTAL PESTICIDES COLLECTED – KG 214,618

Old Obsolete Livestock/Equine Medications – kg recovered

| | | | |
|---------------------------------|--------------|--------------|--------------|
| British Columbia (Peace Region) | 325.5 | Manitoba | 1,404 |
| Alberta (Peace Region) | 416.5 | Ontario | 2,269 |
| Alberta (North) | 1,284 | Newfoundland | 143 |

**TOTAL OLD OBSOLETE LIVESTOCK/
EQUINE MEDICATIONS COLLECTED – KG 5,842**



Meet David Pattyson

**Executive Director, Upper Souris Watershed Association Inc.
Estevan, Saskatchewan**

It may seem an unlikely partnership, but the Upper Souris Watershed Association Inc. (USWA) and Cleanfarms go together like peanut butter and jam. The two organizations share many of the same values when it comes to promoting a healthy, sustainable environment in Saskatchewan agriculture.

The USWA operates two of Cleanfarms' 35 grain bag collections depots in the province, accepting empty grain bags for recycling.

Collaborative partnerships are at the core of USWA's operations. It relies on partnerships to build programs that protect and improve water quantity and quality in the watershed. Through a contract with the Ministry of Agriculture, it offers farm stewardship programs to area growers and ranchers.

"USWA prides itself on delivering on-ground programming for farmers efficiently," USWA Executive Director David Pattyson says. The Association believes that to maintain the momentum of good environmental stewardship, farmers and ranchers need access to systems that offer efficient, cost-effective solutions.

"In order to make the ag plastics recycling program work, farmers need to have reasonable access to recycling services," Pattyson adds.

That's where Cleanfarms comes in.

"USWA is always looking for partners that extend our reach into programs that we could not develop ourselves, but we choose our partners carefully." Cleanfarms' reputation as a well-run, professional organization clinched the decision.

USWA has been collecting grain bags at two locations, RM Cymri (Halbrite) and RM Moose Creek (Almeda) in southeast Saskatchewan, since the regulated program began. During that time, Pattyson has seen the volume of ag-plastic collected for recycling increase dramatically. This pleases Pattyson.

"We continually demonstrate directly to producers that reducing their environmental footprint is not only feasible but can support their bottom line."



Saskatchewan Provincially-Regulated Grain Bag Recycling Program

Grain bag recycling in Saskatchewan entered into full swing in 2019 with the results out of the gate showing that it was a welcome option for growers to manage this on-farm plastic waste generated as they emptied grain bags after harvest.

Launched under the Saskatchewan Government's *The Agricultural Packaging Product Waste Stewardship Regulations*, 2016, the regulation obligated grain bag first sellers (companies that supply grain bags into Saskatchewan) to take financial responsibility for recycling programs.

The first year of recycling operations under the regulation, 2018, saw 1,257 tonnes recovered for recycling. 2019 recovery rates indicate a growing interest on the part of users to recycle the used, empty bags.

To help cover the cost of collecting the bags at designated collection sites and transporting them to end markets for recycling, a non-refundable Environmental Handling Fee (EHF) applied at the time of purchase has been in effect since November 1, 2018. Recycled grain bags are made into new products such as plastic bags.

Cleanfarms developed and operates the grain bag recycling program in Saskatchewan on behalf of first seller stewards.



BY THE NUMBERS

GRAIN BAGS COLLECTED
IN SK FOR RECYCLING
2,256 TONNES

44%

increase
over 2018



Seed, Pesticide and Fertilizer Bag Collection Program

2019 marked the fourth year that Cleanfarms collected empty seed and pesticide bags for proper disposal at end of life in Eastern Canada. The number of bags collected year-over-year has been steadily climbing. 2018 saw an increase of 22% over 2017, largely because of adding the collection of large fertilizer bags in Quebec. 2019 recorded another jump in recovery, this time 17% and again, the main reason can be attributed to Quebec farmers.



BY THE NUMBERS

Seed, pesticide and fertilizer bags – kg collected*

| | |
|----------------------|----------------|
| Prince Edward Island | 9,978 |
| Nova Scotia | 570 |
| New Brunswick | 720 |
| Quebec | 282,530 |
| Ontario | 135,490 |

** offered in QC only*

TOTAL KG 429,288

17%

increase in kg
2019 over 2018

Seed and Pesticide Bag Collection Pilots in the Prairies

As the success of the Eastern Canada seed and pesticide bag collection grew, we began getting requests to offer a similar service in the West. This process began in 2018 as Cleanfarms started to explore how to adjust the Eastern Canadian program to suit the needs of Western Canadian farmers. Before implementing any program over a large jurisdiction, we conduct pilot studies. Our pilot for empty seed and pesticide bags continued to grow in 2019 with collections available in southeast Saskatchewan and targeted areas of Manitoba and Alberta.



Manitoba Agricultural Plastics Recycling Pilot Program

Grain bags, bale and silage wrap and twine are valuable tools on the farm that producers use to grow food and to operate their farms more efficiently. However, these materials can be difficult to manage effectively at end of life. Cleanfarms has been working with Manitoba farmers since 2013 under a government-funded pilot program exploring best practices for managing these agricultural waste plastics.

Manitoba farmers, like farmers in all provinces, have had access to recycling opportunities for pesticide and fertilizer containers (23L and under) for years. These pilots help farmers manage grain bags, bale and silage wrap and twine, instead of disposing of these materials in landfill or throwing them on burn piles.

By 2018, Manitoba farmers had turned in more than 34 metric tonnes of waste film plastic and twine for recycling. Those promising results

led Manitoba Conservation and Climate to ask Cleanfarms to examine how to evolve the pilot program to a long-term, financially self-sustaining program that would operate province-wide.

In 2019, Cleanfarms started consultations with a wide range of stakeholders that has led to the development of a transition roadmap comprising a series of measured steps that complement services offered across the Prairies.



BY THE NUMBERS

GRAIN BAGS, BALE AND SILAGE WRAP
AND TWINE COLLECTED FOR RECYCLING

51 TONNES



Meet Chris Nielsen

**V.P. and Owner
DBS Environmental
Lethbridge, AB**

When it comes to the 'Alberta Ag-plastic. *Recycle It!*' pilot program in Alberta, Chris Nielsen is looking at the big, BIG picture.

To him, working as a Cleanfarms collection site for grain bags and twine is about more than recovering the material for recycling. It's even about more than helping local farm businesses operate sustainably. It's about feeding a circular economy for waste materials in Canada that sees these materials recycled and remanufactured into new products right here in Canada, bringing back Canadian manufacturing and creating jobs.

"To me, it's very important that we prove in the pilot that we can collect, process and manufacture here, and that we can do it profitably," Chris says, and that's why he's happy to work with Cleanfarms as a collection site.

His company, DBS Environmental in Lethbridge, Alberta operates a wide range of waste recycling and diversion initiatives, including four stewardship programs for electronics, paint, oil and tires. His mission

is to divert as much as possible from disposal in landfill.

It was a natural for Chris and DBS to partner with Cleanfarms because his company already collects small (23L and under) pesticide and fertilizer jugs – and he gets a lot of them. Farm operations around Lethbridge can average 3,000 to 5,000 acres with diverse agricultural production including cattle, hogs, dairy, chickens, vegetables, sugar beets and kilometers of canola fields.

"The producers in my area really want viable options to manage on-farm plastic waste so they want to be part of this program," he says. After the pilot had been operating only a few months, he already had more than 80 grain bags at his facility waiting for pickup and another 45 or so on farms that will be delivered when the collection truck arrives.



Cleanfarms Pilot Programs

Cleanfarms Named to Run Alberta Grain Bag and Twine Recycling Pilot

In April 2019, the Alberta Beef Producers and the Agricultural Plastics Recycling Group (APRG) announced they had selected Cleanfarms as the program operator for a 'made-in-Alberta', three-year pilot program to collect agricultural grain bags and twine for recycling. Funding for the program is being provided through a grant from the Government of Alberta and administered by Alberta Beef Producers.

Cleanfarms is handling program logistics for the collection, transportation and recycling of the ag-plastic materials. Our first steps in the process included market research to get a snapshot of attitudes and behaviours; a waste characterization study to determine plastic volumes and materials; recycling end market assessment; developing education materials; and establishing 20 geographically

targeted locations around the province where farmers can take the ag-plastic waste materials for recycling. More collection sites will be added in years two and three (2020–2021) of the pilot.

The objective is to develop a permanent province-wide program when the three-year pilot concludes.





Quebec Pilot Aims to Establish Parameters for Producer Responsibility Program

Quebec farmers generate about 11,000 tonnes of ag-plastic waste annually, slightly less than half from plastic materials used to store or wrap silage and hay. Extended producer responsibility (EPR) may be a solution for a permanent province-wide program to manage the waste at end of life.

In 2019, Cleanfarms, in collaboration with MRC des Maskoutains, RIAM, UPA (Vallée maskoutaine et Maskoutains Nord-Est, Comax and La Coop Ste-Hélène) established a pilot project to collect these materials. The pilot is examining how to optimize convenient and cost effective recovery, including studying the types and amounts of waste, communication options, farmers' participation, the best methods of collecting, transporting and recycling, and associated costs.

The waste characterization study was completed in 2019. Collection, transportation, recycling and analysis phases began in 2019 and will continue through 2021. This pilot will expand to include additional regions with the aim of launching a province-wide program in 2022.

In 2019

40 tonnes
of materials were collected



Meet Christine Lajeunesse

**Eastern Region
Business Manager
Cleanfarms**

In Christine's job, it helps to know Canadian agriculture. In respect of where things grow and what inputs produce the best results, you could call her a pretty savvy generalist. But when it comes to knowing how to develop efficient ag-waste recovery and recycling programs that contribute to environmental sustainability, she's a specialist and perhaps even one of a kind, as far as Cleanfarms is concerned.

"My knowledge of agriculture helps me do my job better. It's my responsibility at Cleanfarms to develop and run agricultural waste management programs in Canada that help farmers care for their land," she says.

Christine is, by definition, a rainmaker. She achieves her goals of developing effective programs by facilitating stakeholder interactions involving provincial governments, municipalities, pre-processors and recyclers to work through problems and create solutions. She also connects regularly with farm organizations, ag-retailers, Cleanfarms collection sites and farmers. These partners are critical links in the chain to help distribute educational information, maintain safe, secure areas where farmers can take their waste, and to encourage farmers to participate in the programs.

Christine's territory is Ontario, Quebec and the Maritimes. When she's not orchestrating stakeholder discussions, she's out and about on behalf of Cleanfarms member companies gathering information to stay on top of what's happening in current and future ag-waste management needs. Eastern Canada, for example, has a substantial share of the country's horticultural farming and dairy production.

"I follow these two sectors closely because the use of plastic to protect crops and livestock is increasing," she says, "and I need to understand when to establish collection and recycling programs."

Cleanfarms' aim is to increase the amount of ag-waste funnelled back into an agricultural circular economy to produce new farm products such as drain tiles. Count on Christine to be a driving force in helping Cleanfarms fulfill that mission.

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(added in 2020)

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The Cleanfarms logo consists of a stylized green and yellow semi-circle above the word 'cleanfarms' in a green, lowercase, sans-serif font.