



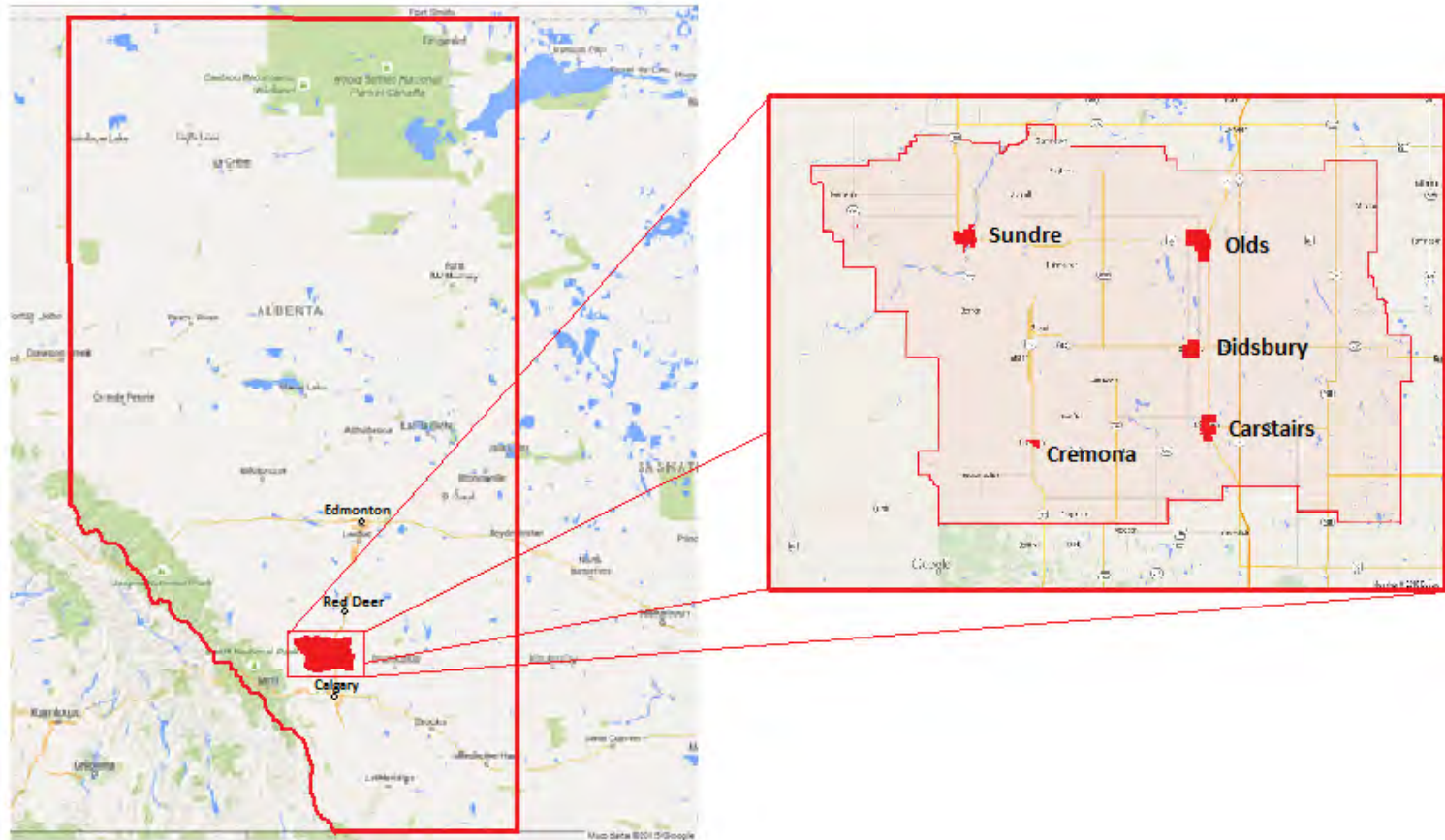
# **Agricultural Plastic Recycling Program**

**Mountain View County  
and  
Mountain View Regional Waste Management Commission**



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# Introduction



# Topics in Presentation



- 1: The Problem
- 2: The Partnership
- 3: The Program
- 4: The Progress

# The Problem

- ❖ The increasing use of plastic materials in agriculture was creating a waste issue; what to do with the plastic after it's used on the farm
- ❖ The Alberta Plastics Recycling Association (APRA) calculated “that polypropylene (twine and cord) sold in the Alberta in 2007 is in range of 9.5 – 11 million lbs. (4300 – 5000 tonnes) and the polyethylene material (sheet materials like silage bags and cover) is somewhat less at 6.5 -8.7 million lbs. (3000 – 4000 tonnes)”

(Recycling Council of Alberta Agricultural Plastics Recycling Pilot Project September 2009 Report)

- ❖ The Mountain View County (MVC) Agricultural Service Board in 2005 discussed the increase of black silage plastic ending up in road allowances, as well as twine and other agricultural waste being littered throughout the County. It was after this meeting MVC started their ground work with Mountain View Regional Waste Management Commission (MVRWMC) to address waste agricultural plastics

# The Problem

- ❖ Polling of local residents began to identify the barriers to recycling plastics, the most common response was “no access to an agricultural plastics recycling collection program/facility”
- ❖ With very few disposal options available to producers, agricultural plastics, for the majority, were being burned or buried on farm
- ❖ In 2006, the growing problem with agricultural plastic waste was brought forward to the Provincial Agricultural Service Board Conference through resolution. This further encouraged MVC and MVRWMC to pursue an agricultural plastics recycling program
- ❖ The need to provide environmentally responsible solutions to producers for waste agricultural plastic products became apparent as many of the practices for the disposal were prohibited or could potentially contaminate soil or water sources

# Why support an Agricultural Recycling Program?

- ❖ Burning plastic releases harmful toxins to the environment and is illegal under the Substance Release Regulation of the Alberta Environmental Protection and Enhancement Act
- ❖ Reduce the dependency of on-farm dumps, burning barrels and reduce the amount of waste agricultural plastic products from going into our landfill system
- ❖ Recycling agricultural plastics saves the producer money by avoiding the transfer station fees
- ❖ There was wide spread support for the program from producers, residents, Council and industry



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# The Issues with the Alternatives to Recycling Agricultural Plastics Products

## 1: Burning plastics on the Farm

- Illegal - (Substance Release Regulation )
- Air pollution – emission of toxic pollutants Dioxins  
Furans, carbon dioxide,  
nitrogen oxides, VOCs  
(benzene, styrene)  
Polyaromatic Hydrocarbons  
fine particulate matter  
(PM10 PM 2.5). Pollution by  
burning can travel very long  
distances .
- Odours
- Reduced Visibility
- Ash Disposal – potential for  
leaching into ground water/  
soil
- Potential for dispersal by  
wind
- Fire hazard



# The following alternatives for dealing with agricultural waste also have drawbacks as noted;



2: Landfill -Increases the size of the landfill and fees



3: On Farm Burying - Over time surrounding soil and water bodies can become contaminated by leaching of toxins from buried waste



4: Storing/Accumulating on the farm - not only looks unsightly it may have environmental and pollution consequences



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# The Partnership - Compatible Visions



## Mountain View Regional Waste Management Commission Vision Statement

*"To limit the impacts on land, air and water within the region through collective partnerships to reduce, reuse, recycle, and recover waste".*

## Mountain View County Council Strategic Goal

### \*Environment

*"Exert maximum influence to protect and preserve the Region's unique and precious natural environment".*



## Mountain View Regional Waste Management Commissions Role in the Partnership

- ❖ MVRWMC evaluates options to accept agricultural plastics and potential markets
- ❖ Dedicates staff time to weigh, collect and sort plastics and wire in to different classes of products
- ❖ The products are then packaged so that they may be accepted by Commercial recyclers that are sourced and coordinated by MVRWMC . (Loose plastic takes up a lot of space so it makes \$ sense to compact it before storing/travelling any distance.)





## Mountain View County's Role in the Partnership

- ❖ Since 2007 Mountain View County provides program administration,
- ❖ The incentive program is budgeted for by Council and processed by MVC
- ❖ Promotion and Encouragement for Agricultural recycling involves both media coverage, and direct consultation with local ratepayers.
- ❖ The County strives to make recycling as attractive and simple as possible for Agricultural Producers

# A Partnership that is working



Collectively both organizations meet annually to review the effectiveness of the program and explore ways to improve the efficiencies in delivering the program



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# The Program

## ➤ Farm Plastic Round-up





# Farm Plastic Round-up

- The first **100** Mountain View County residents who deliver a minimum of **100 kgs** of agricultural waste plastic for recycling will receive **\$100**
- Local 4-H Clubs may recycle agricultural waste plastics on behalf of landowners to receive the \$100 per farm that contributes 100kgs, as a source of revenue towards club activities
- Mountain View Regional Waste Management Commission (MVRWMC) accepts net wrap, tarps, twine and silage plastic at the Olds Transfer Station





# Program Details

When: April - October

- ❖ Limit of one payment per farm. Mountain View County residents only
- ❖ If you are planning to recycle waste plastics, please remember : Upon delivery, twine and net wrap must be bagged in clear plastic bags, with no foreign material and tied off. Twine & net wrap MUST be bagged separately.
- ❖ Black tarps, silage tarps, and poly need to be in 3'x3' bundles and secured-able to handle. Silage plastic and tarps must be clean (no frozen lumps or clumps of silage please). Mini bulk bags may also be recycled if bundled separately
- ❖ The Waste Commission reserves the right to charge for any plastics deemed unacceptable
- ❖ If you are bringing in 500 kgs or more at one time contact the Waste Commission one day in advance
- ❖ Clear plastic bags are available at the Waste Transfer Station and at the Mountain View County office.



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# Communicating the Program

## We'll cover your wire recycling costs!

Mountain View Regional Waste Management Commission, in conjunction with Mountain View County, will be collecting barbed and strand wire to be recycled.

**When** - From 9 a.m. to 3 p.m. weekdays

**Where** - Didsbury Landfill (two miles north of Didsbury off Range Road 20 and Twp. Rd. 314)

**If you plan to take part, please note:**

- Wire must be free of debris (dirt, sod, posts)
- Barbed and strand wire must be rolled as tightly as possible.
- Once we have received 50 tonnes of wire, the cost of disposal will be 10 cents per kg.

For more information, please contact Sustainable Agriculture Specialist Amber Hines at 403-335-3311 ext 163 or [amber.hines@mountainviewcounty.com](mailto:amber.hines@mountainviewcounty.com)

Mountain View County will cover the recycling costs for the first **50 tonnes** of wire we receive!



## It pays to keep your waste farm plastic until Spring, 2009

Mountain View Regional Waste Management Commission is **always** accepting net wrap, tarps, twine and silage plastic for recycling at the Olds Transfer Station (located north of Belshe's Equipment on Range Rd 20) from 9 a.m. to 4 p.m., Monday through Friday.

However, Mountain View County residents who wait until Spring, 2009 to deliver a minimum of 100 kgs of waste plastic for recycling will receive \$100 to keep, or donate to a 4H Club of their choice. (Limit of one payment per farm. Only Mountain View County residents are eligible.)

**If you're planning to recycle waste plastics, please remember:**

- Upon delivery, twine and net wrap must be bagged in clear plastic bags- no straw or loose hay- and tied off.
- Clear plastic bags for twine and net wrap available FREE at transfer sites and the County office.
- Black tarps, silage tarps, and poly need to be in 3'x3' bundles-tied and secured-able to handle.
- MVRWMC has the right to charge for any plastic deemed unacceptable.
- Silage plastic and tarps must be clean (no large frozen lumps or clumps of silage).

For more information, call Lesley Lovell at 403-335-3311 ext. 163.



## Start saving your waste farm plastics

*It pays to save your farm plastics for recycling in Mountain View County.*

Mountain View Regional Waste Management Commission will be accepting net wrap, tarps, twine and silage plastic for recycling at the Olds Transfer Station (located north of Belshe's Equipment on Range Rd 20) from 9 a.m. to 4 p.m. on the following dates:

**April 17 & 24; May 1, 8, 15, 22, 29 - Special Saturday May 3**

The first 100 Mountain View County farmers to deliver plastic will receive **\$100.00** (minimum of 100 kgs of plastic in order to receive payment), which they may keep, or donate to a 4H Club of their choice. **Limit of one payment per farm. Only Mountain View County residents are eligible.**

To ensure our staff is able to handle your waste plastics, please bag or bundle your load prior to delivery. Upon delivery, twine and net wrap must be bagged in either mini bulk bags or large plastic bags (no straw or loose hay). Silage plastic and tarps must be clean (no large frozen lumps or clumps of silage).

Call Lesley Lovell at 335-3311 for more information.

## Turn Agricultural Plastics into Cash

**From: April 2nd – October 26th, 2012  
Monday – Saturday each week**

**Limit of one payment per farm  
Mountain View County residents only**

• Year-round, the Mountain View Regional Waste Management Commission is accepting hay tarps, baler twine, poly film and clean silage plastic at the Olds Transfer Station.

• If you are a County agricultural producer with a minimum of 100kgs of recyclable Ag plastic to recycle, bring it to the Olds Waste Transfer Station. The first 100 producers to do this before October 26, 2012 will receive \$100.

• Clear Plastic bags can be picked up at the County office or at any of the three MVRWMC Transfer Stations.

**To all MVC 4-H clubs looking for revenue towards club activities:**

Every MVC based 4-H club is also eligible to recycle 100 kgs of farm plastic and receive \$100 from the Farm Plastic Recycling Program. The club must be one of the first 100 participants to deliver the recyclables to the Olds Transfer Station in order to qualify for the funding.

If you are planning to recycle agricultural waste plastics, please remember:

- Upon delivery, twine must be bagged in clear plastic bags, with no foreign material and tied off.
- Hay tarps, silage tarps, and poly need to be in 3'x3' bundles and secured and able to handle.
- ALL agricultural waste plastic being recycled MUST be FREE of mud, metal, straw, hay, manure, wood and any other debris.
- The Waste Commission reserves the right to charge for any plastics deemed unacceptable.
- If you are bringing in 500kgs or more at one time contact the Waste Commission one day in advance at 403-556-8120.

**Net Wrap is NOT being accepted under this recycling program!**

All Net Wrap MUST be bagged separately to be considered under the 2012 trial program to dispose of Net Wrap free of charge.



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# Paperwork



## Farm Plastic Round-up (4-H Clubs)

1408 Twp. Rd. 320 / Postal Bag 100, Didsbury, AB Canada T0M 0W0  
T 403.335.3311 F 403.335.9207 Toll Free 1.877.264.9754  
www.mountainviewcounty.com

The following 4-H Club has recycled agricultural plastics.  
Please circle one:

Prairie Partners	Olds Beef	County Critters
West Carstairs	Eagle Beef	Didsbury Outlaws
West Didsbury	Bergen	Mountain View Dairy
Cremona	Sundre Multi	Ropes and Reins
Silversage Riders	Halter & Harness Heavy Horse	

Date: \_\_\_\_\_

Name of Club Leader: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature of 4-H Club Representative: \_\_\_\_\_

Total Kgs of plastic recycled: \_\_\_\_\_

Note: 100 kgs minimum per 4-H club is required to receive payment.

This program is only eligible to 4-H Clubs within Mountain View County



## Farm Plastic Round-up

1408 Twp. Rd. 320 / Postal Bag 100, Didsbury, AB Canada T0M 0W0  
T 403.335.3311 F 403.335.9207 Toll Free 1.877.264.9754  
www.mountainviewcounty.com

Name /Farm Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Legal Land Description: \_\_\_\_\_

I am willing to have my name publically posted on a Thank You poster for participating in Mountain View County's Farm Plastic Round-up Program. YES or NO

Name to be posted: \_\_\_\_\_

Type of plastic (Circle One): Twine Silage Plastic Hay Tarps

Total kgs of plastic recycled: \_\_\_\_\_

Date: \_\_\_\_\_

Signature of Landowner: \_\_\_\_\_

Note: 100kgs minimum per farm is required to receive payment.  
This program is only eligible to Mountain View County residents.

Information regarding the program and application forms as shown can be found on line at [www.mountainviewcounty.com](http://www.mountainviewcounty.com)



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# Historic Program Details

- ❖ In 2007 an advertising campaign was run through to make producers aware of the one day Farm Plastics Round Up, and of the program and requirements
- ❖ This program collected 19.3 tonnes from 76 participants and of the \$7600 payout, \$2100 was donated to local 4-H Clubs
- ❖ In 2008, 5 mil clear poly bags were made available for twine with the result that the material was cleaner and easier to handle than that from the previous year
- ❖ A County-sponsored program offered \$100 for a minimum of 100 kgs running from April 15th- May 31<sup>st</sup> on Thursday only and some Saturdays in 2008
- ❖ Ag Plastics was also being accepted year round at the transfer station
- ❖ Estimated 40% polypropylene and 60% polyethylene plastics collected
- ❖ MVRWMC collects and bales plastic at the transfer site, ships by containers to Asia for recycling



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# Program Findings

1. Used plastics must be sorted at source by resin type, mixed resin have much lower value
2. Minimal contamination is important (CLEAN AS POSSIBLE)
3. Ease of handling at collection sites – twine rolled or folded and bagged at <1cubic metre)
4. Manual handling is inefficient (baling of accumulation periodically or use of bags/bins)
5. Producers are willing to bring used plastics to landfills and support or wish the program expanded
6. Seasonality of processing
7. Education is key



# The Progress

## Historical Tonnage Collected

2007 - 19,610 kgs farm plastic recycled  
2008 - 18,950 kgs farm plastic recycled  
2009 - 19,265 kgs farm plastic recycled  
2010 - 23,830 kgs farm plastic recycled  
2011 - 19,110 kgs farm plastic recycled  
2012 - 28,290 kgs farm plastic recycled  
2013 - 20,150 kgs farm plastic recycled  
**2014 - 55,250 kgs farm plastic recycled**



# Historical Plastic Recycled

2012 – 16,680 kgs Twine – US Bound

(Minnesota based Company)

2013 – 33,600 kgs Twine – US Bound

(Minnesota based Company)

2014 – 22,680 kgs Silage Wrap – Overseas Bound

(Meridian Wealth Management Inc.)

2015 – YTD – 103,450 kgs of Twine – Overseas Bound

(SWA Developing Company LTD)

# **“First load of recycled twine makes history ”**

*Jennifer Isaac, Mountain View Gazette, March 13, 2012*

Mountain View Regional Waste Management Commission (MVRWMC) recently made history for being the first Canadian organization to ship a load of reclaimed agricultural twine to a Minnesota based company. The 38,900 pound shipment – which represented five years’ worth of collection – was loaded on Feb. 7 for delivery to Bridon Cordage, where it will be recycled into a product called Revolver Twine, consisting of mostly post-consumer baler twine.

“This demonstrates that we are leaders in the recycling of agricultural plastic,” said Al Molnar, chair of the MVRWC.

The commission was paid \$5,100 for the shipment, which will go back into their operations account. Recyclers have been seeking solutions for twine for many years, said Dave Whitfield, regional waste reduction specialist with Alberta Environment and Water and a member of a working group on agricultural plastics, established by the Recycling Council of Alberta.

MVRWC is a part of that group. “The concerns have been about collection at the farm level, contamination from dirt and manure, moisture levels and cross-border shipping,” Whitfield said.



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“Any material that will be used in the manufacturing of another product – as virtually all recycled materials are – must meet tight specifications.”

Material not meeting specifications, he said, will be rejected at a substantial cost to the community shipping it “The significance of the recent shipment by the commission is that it has proven the challenges can be met and it opens the door for other communities to do the same.” Used twine can be a problematic material, he added. “On the farm, it wraps around moving parts of equipment and can be ingested by livestock,” Whitfield said. “At landfills, it wraps in equipment mechanisms and causes substantial down-time.

“The program also keeps plastic out of the waste stream and extends the life of the landfill,” Molnar noted.



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# Achievements of the Partnership

## A tremendous success!

The project has generated a tremendous amount of environmental awareness in our Community. We have seen an increase in support and participation from our local residents

The agricultural community has been provided with a mechanism to dispose of their agricultural plastics as an alternative to unapproved on farm disposal methods that historically have been common practice throughout Western Canada

Residents look forward to this program each year and lobby strongly to ensure its continuation



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# 2015 Agricultural Service Board resolutions

## Resolution #12

### Agriculture Plastics Recycling

***“Therefore be it resolved that Alberta’s Agricultural Service Boards request That Alberta Environment and Sustainable Resources Development together with the Alberta Recycling Management Authority implement a stewardship program that will provide funding and add value to both collection and recycling of Agricultural Plastics in the Province of Alberta”***



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# Activities Update

## Completed Studies

- Recycling Council of Alberta - Agricultural Plastics Recycling Pilot Project September 2009 Report
- Ipsos Reid, on behalf of Alberta Agriculture and Rural Development, and Alberta Environment and Sustainable Resource Development completed the following;  
*Agricultural Plastics Recycling – Agricultural Producers Survey Final Report 2012 & Agricultural Plastics Recycling - Municipal Waste Authorities Survey Final Report 2012*
- Alberta Agricultural Waste Characterization Study – Final Report 2013 by CleanFARMS Inc. in partnership with Alberta Agriculture & Rural Development (ARD) through Growing Forward 2 – See executive summary attached.
- 2015 - Alberta Agriculture has surveyed the Ag Fieldmen, Municipal Waste Authorities and the processing companies. The purpose of the survey is to help gather information for the economic analysis of the different markets existing for Ag. Plastics. This information will also assist with creating awareness of the market based solutions and the importance of managing Ag Plastics. Hopefully the report will also capture which Municipalities have an Ag Plastics Recycling Program, as there seems to be more and more. They hope to have the report completed and available by winter.







# Questions

