Ag Plastics in the PRRD

Collection Opportunities

May 21, 2020

PRRD Directors meeting

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Agenda

1. About Cleanfarms
   - Who we are, our programs, how we are funded

2. Ag Plastics Collection – Program Components
   - Considerations for starting an ag plastics collection program

3. Options for collection in PRRD
   - Program operations, partnerships and funding

About Cleanfarms

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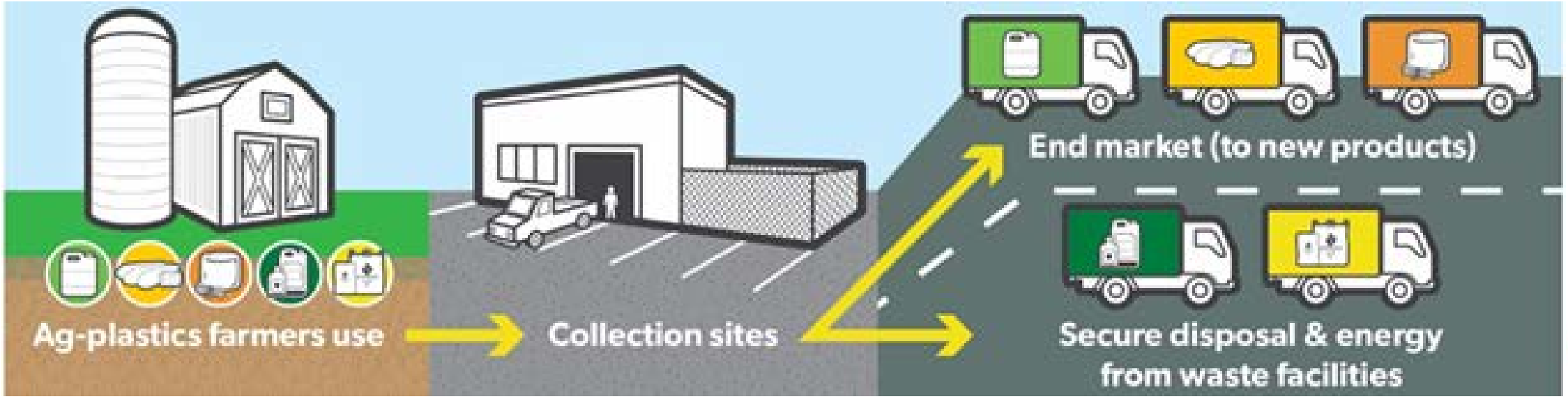
Who we are

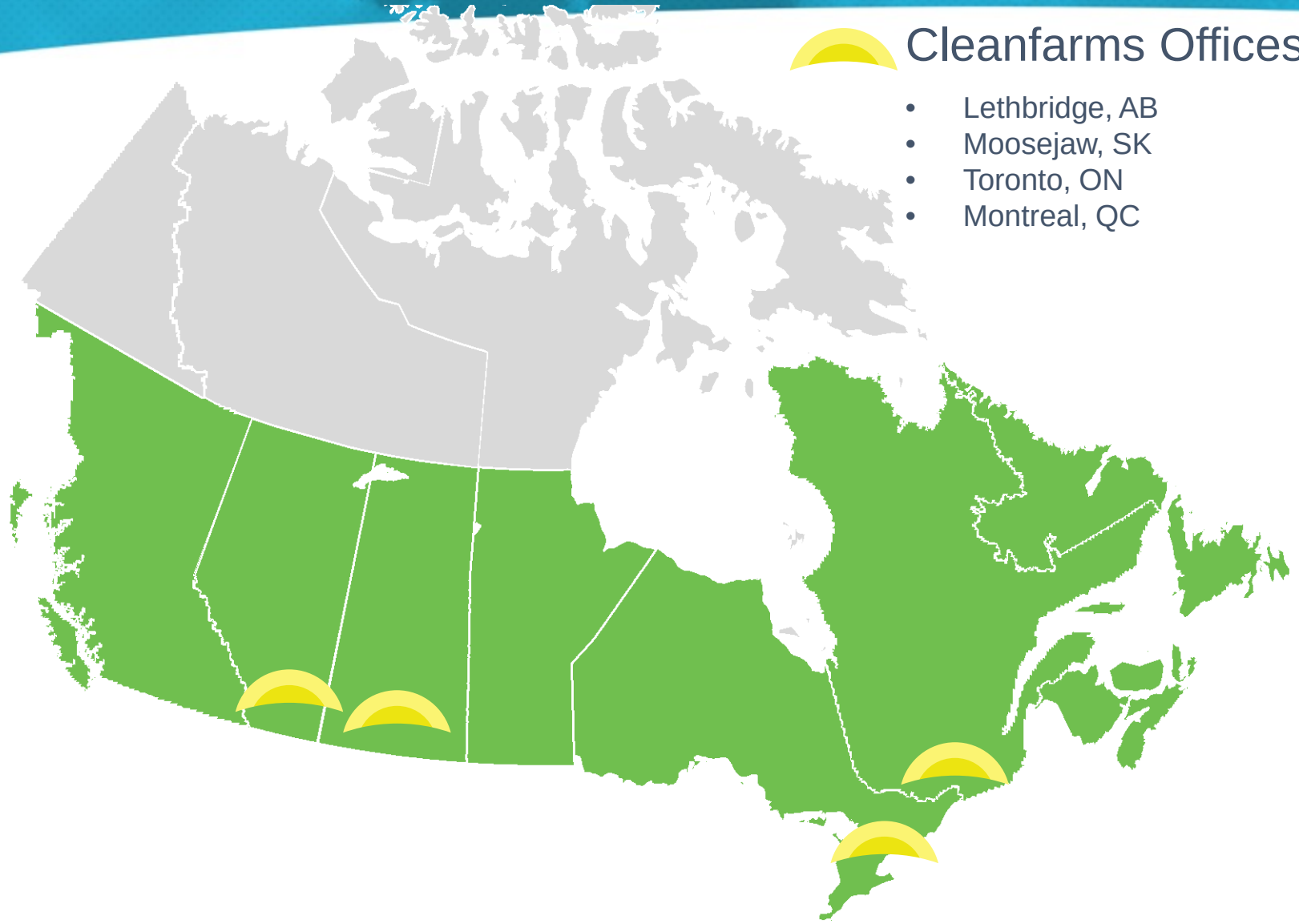
Our Vision:

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

Approach:



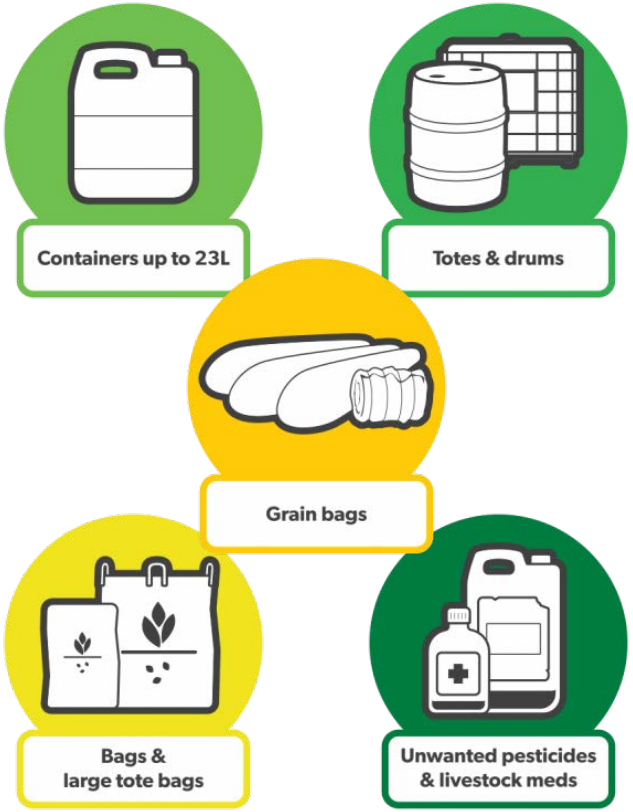
Operations Coast-to-Coast



Cleanfarms Offices (4)

- Lethbridge, AB
- Moosejaw, SK
- Toronto, ON
- Montreal, QC

5 Permanent programs



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Cleanfarms Programs

pesticide containers

1989

pesticide bags

2006

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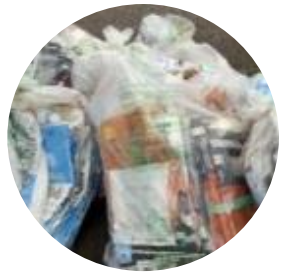
2009

bulk pesticide containers

2015

bulk fertilizer containers

2018



seed bags (West)

2021

CropLife CANADA

obsolete pesticides

1998

obsolete animal health meds.

2009

fertilizer containers

2013

seed bags (East)

2016

grain bags (SK)

2018

fertilizer super sacks (QC)

2018

How is Cleanfarms Funded?

Primary - Industry funding

- Voluntary industry commitment
- Regulated EPR

Supplementary - Government grant funding

- Research
- Pilot programs and regulatory prep

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Current Programs in PRRD

- <23L container collection
  - Nutrien - Fort Saint John: 5,391 lbs (2019)
  - Dawson Creek Transfer Station: 4,026 lbs (2019)
- >23L container collection
  - Dawson Creek (AgroSource, Richardson Pioneer)
  - Fort Saint John (Nutrien)
  - Rolla (Rolla Ag)
- Obsolete Pesticide/Livestock Medication Collection
  - Fort Saint John (Nutrien)
  - Dawson Creek (Richardson Pioneer)

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AB Grain Bag and Twine Collection Pilot

3-year program for the collection of grain bags and twine

- Funded by AB Agriculture; Alberta Beef Producers
- Committee oversight (APRG); Cleanfarms is the operator

Phased approach

- Year 1: 20 sites
- Year 2: 25 sites
- Year 3: 30 sites

2 sites in Peace River region AB – MD Fairview and County of Grande Prairie

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Ongoing Cleanfarms Projects

- CURRENT
  - National ag waste study and markets assessment
    - Funded by ECCC

- UPCOMING (not yet confirmed)
  - National pilot projects to target additional waste streams
    - Funded by AAFC

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Ag Plastics Collection – Program Components

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Setting up a collection program

1. Infrastructure for collection
2. Materials
3. Consolidation
4. Transportation
5. End markets

Programs are region-specific – developed in a way that minimizes costs and maximizes convenience

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Infrastructure for collection

- Material moved from farm to collection site
  - Drop off loose;
  - Drop off in bags;
  - Picked up on-farm

- MB, SK and AB pilots: collection bags provided
- ATL Canada: Drop off loose in 40yd bins (film only)
- QC: on-farm baling/compaction

Materials

- What will be collected?
  - Twine (Polypropylene)
  - Bale/silage wrap (Low density Polyethylene)
  - Netting (High density Polyethylene)

- Minimizing contamination is #1 priority
  - All materials must be separate (i.e. do not mix twine with netting, etc.)
  - Materials must be relatively clean (recyclers looking for 70%+ yield)
    - Contaminants include water, dirt, organic material, other plastics etc.

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Examples of contamination

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Consolidation

- Materials must be consolidated into truckload volumes
  - 45,000 lbs per load
- Baling is the ideal solution
  - Sites may need to work together to get full truckload volumes

Transportation

- These materials are often moved long distances
  - Markets in USA, overseas
- Consolidating near rail yards or major transport routes can reduce costs
- Often, recycler will pay for transportation from a major hub (i.e. from port of Vancouver to overseas market).

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End Markets

- Each recycler is different
  - Tolerance for contamination, yields
  - Processing capacity

- Most end markets will provide some compensation **if materials meet quality requirements**
  - Loads can be rejected if materials are not clean enough (very expensive)
  - Penalties in place for low weights (if recycler pays for transport)
  - Low-quality loads could damage relationship with recycler

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Options for collection in PRRD

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Ag Plastics Collection in PRRD

- Program Operations
  - Materials to be included and estimated collection volumes
    - Grain bags, silage tarp, bale wrap, twine, netting
  - Collection model
    - On-farm pickup, drop-off locations
    - Collection bags, on-farm/collection site compaction, bin system
    - Local infrastructure
  - Availability of local contractors (collection, loading, baling)
  - Consolidation and transportation to end market

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Ag Plastics Collection in PRRD

Loading grain bags – requires specialized equipment and operators

Ag Plastics Collection in PRRD

Typical costs

- Cost of a pilot program depends on:
  - Method of collection
  - Available infrastructure
  - Volumes collected
  - Distance to consolidation point
  - Distance to end markets
  - Materials collected
  - Communications and education
  - Administration

Other considerations:

- Est. collection volumes/collection rate
  - Grain bags = 50-70% collection rate
  - Bale wrap = 30-50% collection rate
  - Twine = 15-20% collection rate

- Recycling market availability
  - Grain bags = good/great
  - Twine = good
  - Bale wrap = bad
  - Netting = N/A

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Ag Plastics Collection in PRRD

- Partners
  - Other regions
    - RDFFG has approached Cleanfarms
    - More collections = economies of scale
  - Producer groups
    - Communication to participants
    - Buy-in
    - On-farm expertise/feedback
    - Cleanfarms presented to BCCA in 2019

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Ag Plastics Collection in PRRD

- Funding options
  - Government (federal or provincial funding)
    - FCM, BC Ministry of Env. Or Agriculture, CAP, Closed Loop Fund
  - Self-funded by PRRD or co-funded by multiple RDs
    - QC Maskoutains pilot project
  - Industry/Producer funded (environmental handling fee)
    - Requires EPR regulation

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Questions and Discussion

Thank you

Shane Hedderson
Western Business Manager
heddersons@cleanfarms.ca

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