Extended Producer Responsibility in the Agricultural Film Market

Jeromy Plagenza, Director of Sales
Technical Training Conference
December 2018
Commercial Agricultural Films

Driving innovation in agriculture

- Crop covering (mulch films, vine cover)
- Pest and disease control (fumigation films, other barrier films)
- Crop irrigation (lay flat flood and drip tape and tube)
- Crop and feed storage (bunker cover, ag bag, almond cover)
- Produce processing (bin liners, pallet covers)

Easy to Use
Cost Effective
Improves Yield

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Extended Producer Responsibility

Producer obligation to **integrate all stages of a product’s lifecycle** into design and distribution

- Design with recycling in mind
- Maintain performance standards
- Ensure proper disposal
Conflicted State of the Film Market

Increasing Film Supply
- Improve crop yields
- Minimize farm operation costs
- Employ reliable products on crops

Growing Eco-Demands
- Public desire for green industries
- Customers want recycled products
- Growing environmental legislation

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Producer Decisions Effect Recyclers

**Cause**

- Design products with multiple base materials
- Deficient product design introduces auxiliary material

**Effect**

- Multi-material products cannot be recycled
- Increase sortation costs and erratic recycling success
Finding A Successful Solution

Producers ➔ Consumers ➔ Recyclers

- Design for Recycling
- Meet Performance Specifications
- Ensure Proper Disposal
- Collect Consistent Material Supply
- Input Viable Materials
- Deliver Innovative Recycling Systems

✓ High-Value Transactions
✓ Strong Product Demand
✓ Efficient Solutions

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Revolution: Believe in Better Plastics

We believe in better plastics that help preserve our environment for future generations. Through our revolutionary manufacturing, collection and recycling process, we provide our customers with truly sustainable plastic products.

We take responsibility for our footprint by pairing 220+ million pounds of film manufacturing with 220 million pounds of recycling capabilities.
National Operations

- Salinas, CA
- Los Angeles, CA
- Dallas, TX
- Stuttgart, AR
- Little Rock, AR
- Madison, WI

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Infinite Impact

We not only make the highest quality plastics, we also collect and recycle them to create a continuous cycle of sustainability. We call this ongoing production and recycling process our “Closed Loop System” and it makes an impact. We have diverted over 1 billion pounds of waste material from landfills in the United States. That’s pretty revolutionary.
Closed-loop manufacturing

1

Strategic distribution partnerships

2

High-quality products for various agriculture applications

3

Efficient PCR production at recycling facilities

4

Disrupt consumer film products by introducing PCR-rich products

5
Green Means Growth

Through sustainability, we all flourish. Our collective brands help partners achieve industry leadership, maximize revenue and expand brand recognition by providing a wide selection of consciously crafted plastic products, the highest level of customer service and a far-reaching geographic footprint.
## Sustainable Manufacturing

**Closed Loop**
- Polytubing
- Vine Cover
- Tarp Cover

**Out Loop (Single-Use Products)**
- Carryout Bags
- Liners, Covers, Plastic Lumber
Collection Methods

Grapple Trucks
- Fleet of over 60 grapple trucks

Dumpsters / Roll-offs
- Over 4,000 roll-offs and dumpsters

Collection Agreements
- Agreements with ag plastic manufacturers and 3rd party waste haulers
**Specialized Recycling Process**

- **Used Ag Plastic** (Plastic, water and farm soil)
  - **Wash Process** (No chemicals used, no water runoff)
  - **Process Water** (Water and soil)
  - **Water Filtration**
  - **Clean Water** (Recirculated into the wash process)
  - **Farm Soil**
- **Plastic Extrusion** (All electrical process – low GHG emissions)
- **Recycled Resin** (Used to manufacture consumer goods)

**220 Million Pounds of Recycling Capabilities**
- 200 million in Arkansas
- 20 million in California

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Grower Case Study

Goal: Close the Loop for Almond Growers and Processors

- Offer film collection services for co-op statewide
- Decrease labor costs with film removal equipment
- Introduce recycled content product comparable to market specifications

Leading Almond Processing Co-op

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**Mission:** Enable a closed loop process for a manufacturer improving their practices

**Action:** Collaboration with Toro to educate growers about plastic best practices

**Vision:** Develop Toro specific PCR to unlock a Toro closed loop system in perpetuity
Consumer Focused Case Study

Standard Supply Chain

Grower ← Ag Film Producer + → National Retailer

Grower ← Packaging Producer + → End Consumer

Revolutionary Closed Loop Chain

Grower ← National Retailer

End Consumer ← End Consumer

= High level of single-use products

= Major reduction in waste

Consumer Interests:
- Desire for recycled product
- Growing demand for eco-friendly supply chain
The Good Plastics People

We are a family unified by a single, powerful mission: creating better plastics that help preserve our environment for future generations.

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