The ACRC Pesticide Container Stewardship Program: 
A Model for Other Ag Plastics?

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STRIVE FOR SUSTAINABILITY
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Ag Container Recycling Council (ACRC)

What is it?
A non-profit corporation formed in 1992 to facilitate and manage the collection and recycling of one-way HDPE crop protection and other specialty pest control containers in a cost effective and environmentally responsible manner.

Who are the members?
Crop protection and specialty pesticide manufacturers and distributors who sell pesticide products in HDPE containers.

How is it funded?
Member dues based on pounds of plastic used to package product.
ACRC MEMBER COMPANIES

ADAMA Agricultural Solutions, Ltd.
Albaugh, Inc.
AMVAC Chemical Corporation
Arysta LifeScience, LLC
BASF Corporation
Bayer CropScience
Bayer HealthCare LLC
Brandt Consolidated, Inc.
Certis USA, LLC
Dow AgroSciences, LLC
DuPont Crop Protection
Ensystex, Inc.
Fine Americas, Inc.
FMC Agricultural Products
Gowan Company, LLC
Helena Chemical Company
Isagro USA
Liphatech, Inc.
Marrone Bio Innovations, Inc.
Miller Chemical & Fertilizer Corp
Monsanto Company
Nichino America, Inc.
Nufarm Americas, Inc.
Plant Food Systems, Inc.
PBI/Gordon Corporation
PROKoZ, Inc.
RiceCo, LLC
SePRO Corporation
SipcamAdvan USA, Inc.
Syngenta Crop Protection
Tenkoz, Inc.
TKI/NovaSource
United Phosphorus, Inc.
Valent U.S.A. Corporation
Wilbur-Ellis Company
Willowood USA, LLC
Winfield Solutions, LLC
Zoetis, Inc.
Unique Aspects of Program

• Voluntary; arguably the 1st in the nation

• Containers are a package: not a “product”

• Not a public consumer good
  ➢ No general public “demand” for recycling
  ➢ Smaller universe of consumers

• Fee to recycle
  ➢ Small % of total product/package cost
ACRC Recycling Program

Agri-Plas

State of Montana

CSN, LLC

ACRC-Maine Program
(2 baling sites)

Interstate Ag Plastics

USAg Recycling

Non ACRC programs
Pesticide Container Recycling by State*
1993 – 2014
(in millions of pounds)

*For States Currently in ACRC Program

www.acrecycle.org
How the Program Works
1.) Pesticide users triple or pressure rinse containers
2.) Containers are aggregated at collection sites
3.) ACRC contractor inspects containers
4.) ACRC contractor grinds containers
5.) Plastic is washed
6.) Plastic used in ACRC approved end use products
Eight Key Elements of a Product Stewardship Program (PSP)

1. Funding Mechanism
2. Funding Approach
3. Fee Collection Point
4. Fund Consolidation point
5. Fund Oversight
6. Fund Management
7. Program Oversight
8. Program Operation
1.) Funding Mechanism

- Tax

  ✓ Fee (ACRC)
    - Visible
    - Invisible
      - Small % of product cost
      - Internalized cost through market forces
      - Minimizes work for supply chain
2.) Funding Approach

• Mandatory

✔ Voluntary

   – Pros
   • More flexibility without prescriptive government mandate

   – Cons
   • Weak industry demand for recycled product yields low incentive for all industry members to join
   • “Free rider” problem results in reduced competitiveness
3.) Fee Collection Point

✓ Point of manufacture (POM)

○ Benefits
  ✓ Known cost based on production rather than recycling
  ✓ Minimized burden on supply chain stakeholders
  ✓ Customer friendly

○ Challenges
  ✓ Stakeholder understanding/”buy in” on recycling is lost
4.) Fund Consolidation Point

- State Government
- Producer
- None

✓ PSP
  - Benefits
    - Eliminates government oversight and costs
    - Economies of scale
5.) Fund Oversight

- Government
- Producer
- None

✓ PSP

- Reduced overhead costs
- Develop more efficient methods
- “Transparency” precluded by annual audits
6. Fund Management

- Government
- Producer
- None

✓ PSP

- Motivates efficiency
- Reduces overhead
7. Program Oversight

- State Government
  - PSP
    - Benefit
      - Sales data allows more efficient tracking of effectiveness
    - Challenge
      - Program success not transparent or verifiable without government role
8.) Program Operations

- PSP
- Private companies
- Local government
- Publicly funded entity

✓ Combination
ACRC Program Operations

✓ Combination
  o Collection sites
    ➢ Ag retailers
    ➢ Pesticide applicators
    ➢ Growers
    ➢ Landfills and recycling centers
  o Collection
    ➢ Private entrepreneurs
  o Processing
    ➢ Existing plastic processors
  o End users
    ➢ Existing manufacturers
SUPPLY CHAIN

- Manufacturer
- Distributors/Retailers
- User
- Collection site hosts
- ACRC Contractor
- ACRC Approved Plastic processor
- ACRC Approved End user

ACRC ROLE

- Solicits as members
- Educates on cleaning and program
- Promotes participation Education on cleaning

None

- Funds & administers compliance with terms
- ACRC identifies and approves
- ACRC identifies and approves
Is the ACRC a successful stewardship program?

• Membership includes 90+% of industry
• Service covers 44 states
• >160,000,000 lbs. recycled in 23 years
• Dues and recycling cost is <10 years ago
• 45.2% of plastic packaging recycled!
• 67.6% of liquid formulated pesticide is sold in packaging that is recycled or with no packaging at all!
Implementation Recommendations

- Select a business model & success criteria
- **Obtain support** of supply chain stakeholders
- Participation correlates with **ease of access**
- Educate broadly **before** program starts
- **Detailed reporting** of sources/quantities
- Communicate with & cultivate **official state participation**
- **Cultivate competition** for service contracts
- **Adequately fund** and implement promotion
Thank you for your time and attention!

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