



PSCI Annual Meeting

Closed-Loop Plastics Recycling: Coming to a Grocery Store Near You

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- **Why Are Plastic Pail Molders in a Good Position for Future Sustainability?**
 - Background on advantages of plastics in packaging
 - Examples of Current Closed-Loop Recycling Programs
- **APR/FMI Closed-Loop Initiative with National Grocery Chains**
 - Background
 - What will be collected
 - How much volume is anticipated

Why Are Plastic Pail Molders in a Good Position for Future Sustainability?

Main conclusions: Copenhagen, 11 Dec 2009 *

- Plastics products enable significant savings of energy and the reduction of greenhouse gas (GHG) emissions. The production & use phases are the most important.
- In existing applications plastics are very energy efficient materials enabling resource efficient solutions.
- Substitution of plastic products by other materials would in most cases increase energy consumption & GHG emissions.
- Plastics often facilitate reduced material consumption.
- Plastics used for thermal insulation, for food packaging and in the production of renewable energies result in very significant benefits during the “use” phase

* Plastics Europe Press Event: “Plastics - a climate change protector”

Why Are Plastic Pail Molders in a Good Position for Future Sustainability?



Is plastic using up our oil and gas?

- Plastics production accounts for just 4% of oil and gas use
- Other non-energy use consumes a further 4%
- The chemical and petrochemical industries consume around 5%
- Heating, electricity and energy production consumes a further 42%
- Transport consumes 45% of our oil & gas

Why Are Plastic Pail Molders in a Good Position for Future Sustainability?

Example: Plastics packaging - When more is less

On average only 1 to 3% of the weight of a packaged product in plastics comes from the packaging:

- A plastic film of 2g packages 200g of cheese
- A plastic bottle of 35g packages 1.5 liter of drinks

Inclusive the logistic packaging, it grows up to 3.56% on average



Without plastics, retailers' fleets would make 50% more journeys

The Future – Recycling of all #5s Including Bottles, Cups & Containers and Closures

- **Association of Postconsumer Plastics Recyclers (APR) has initiated program to add PP recycling to #1 PET and #2 HDPE bottles**
 - Three meetings have already been held to lay foundation for PP recycling
 - Major end-use companies are concerned about the future and have joined the APR with the expectation of having access to more postconsumer material. These companies include: Unilever, Procter & Gamble, The Coca Cola Company, PepsiCo, Estee Lauder, Kimberly Clark, ConAgra and Kraft Foods
 - This group is currently gathering information to identify and launch a major PP recycling program, with longer term objective of having #5's collected curbside nationally

What is Collected Today?

- **ACC 2008 Study confirmed 361MMlbs of postconsumer non-bottle rigid plastic collected**
 - **HDPE represents 38%**
 - **PP represents 25%**
 - **These two resins represent 227MMlbs**
- **This material may not be suitable for use in high impact pails**

Initial PP Recycling Success Stories

Source: 911Earth.com

- **Preserve Gimme 5**

Preserve, a maker of household goods that utilize 100 percent recycled plastics and post-consumer paper, has partnered with Organic Valley and Stoneyfield Farms to recycle polypropylene. Simply drop off your containers at a designated Whole Foods location or mail them directly to Preserve.

- **Recycle Caps with Aveda**

Aveda created its cap recycling program to ensure these little guys are not discarded on beaches or in water sources. Aveda accepts clean tops from shampoo, beverage and condiment bottles (such as ketchup and mayonnaise). Take your caps to an Aveda store, and the company will ship the caps to its own recyclers and use the material to make new caps for its hair and [beauty products](#).

APR/FMI Closed-Loop Initiative with National Grocery Chains

- **Background**

- **Supermarket Facts 2008 - source: Food Marketing Institute Industry Overview 2008**
- **A supermarket is defined as a self-service grocery store generating annual sales volume of \$2 million or more**
- **Total number of supermarkets – 35,394**
- **Median average store size in square feet – 46,755**
- **Average # items carried in a supermarket – 46,852**

APR/FMI Closed-Loop Initiative with National Grocery Chains

- **What will be collected**

- **Most (90+%) recyclable rigid plastic containers are generated by the following four departments within a typical supermarket:**
 - Food: Deli, In-store Bakery, Seafood
 - Non-food: Floor Care
- **Primary rigid plastic recyclable container resins:**
 - Food: Polypropylene/PP, High Density Polyethylene/HDPE, PET
 - Non-food: HDPE
- **Primary containers types and sizes:**
 - Food: 1, 2, 3, 5 gallon pails with metal or plastic handles
 - Food: rectangle food storage trays with lids
 - Non-food: 4, 5 gallon pails with metal or plastic handles

APR/FMI Closed-Loop Initiative with National Grocery Chains

- **How much volume is anticipated (350MMlbs)**
 - **70% of U.S. supermarkets generate an average of 165 pounds of recyclable rigid plastics weekly - example**
 - Size breakdown: 20-5 gallon @ 3.5 lbs; 30-2 gallon @ 1.5 lbs; 50 mixed sizes @ 1.0 lb. average
 - 25,000 supermarkets generate 8,580 pounds, or 4.3 tons annually, or
 - 107,000 tons annually
 - **30% of U.S. supermarkets generate and average of 250 pounds weekly - example**
 - Size breakdown: 30-5 gal; 45-2 gal; 90 mixed = 260 lbs./wk
 - 10,000 supermarkets generate 13,500 lbs./6.75 tons annually, or
 - 67,000 tons annually
- **Will be validating metrics to begin pilot program this summer**

Conclusion

- **Think about how your company might take advantage of this emerging opportunity to improve the sustainability of your business and to potentially lower cost?**

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Thank you for your attention

