How Reusable Packaging Helps Companies Improve Their Sustainability Scorecard, Drive Supply Chain Efficiencies and Increase Sales

Sponsored by:

Rehrig Pacific Company
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Presented by:

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Established in 1913

Fourth generation family owned & operated

Focused supply chain solutions provider

World-class product design and innovation

Eight (8) manufacturing facilities

Twelve (12) service facilities

1000+ employees

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Who uses Reusable Assets?

This is what I am presenting…

Retail-Ready Intelligent Reusable Assets

Sustainability in Supply Chain Solutions
Green Initiatives with Strong ROI

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Three Ways that Define Sustainability

1. Economic – Return On Investment
2. Environmental – Greenhouse Gas Emissions
3. Social – Corporate Responsibility

Brian, what about the loss with reusable packaging?

Great question!

What does our industry say?

Suppliers of reusable assets want their customers to buy their products NOT because of loss, but because of their business & sales growth.

A Major Beverage Company is losing many reusable shells and pallets annually…where are they going?

1. Retailers throwing away, ending in landfills?
2. Route delivery personnel not picking up?
3. Stolen by illegal recyclers?

In order for you to make informed packaging selections, based on costs-per-trip, it is critical to understand the following:

1. Velocity of a Reusable Shell or turn rates – how quickly does a shell cycle from the case packer to the customer and back for reuse, in a quarter, in a year?
2. Life expectancy of a reusable shell
3. Loss – what percentage shells are being lost

Improvement of reusable asset management requires four initiatives:

1. Technology – the use of RFID and GPS on reusable shells and pallets.
2. Retailer support – retailers have to protect these assets until delivery personnel return to retrieve.
3. Route delivery to retrieve – route delivery personnel have to be disciplined at picking up reusable assets and must be held accountable.
4. Legislation/law enforcement – shutting down illegal recyclers and thieves.

How technology can be used to limit reusable asset loss

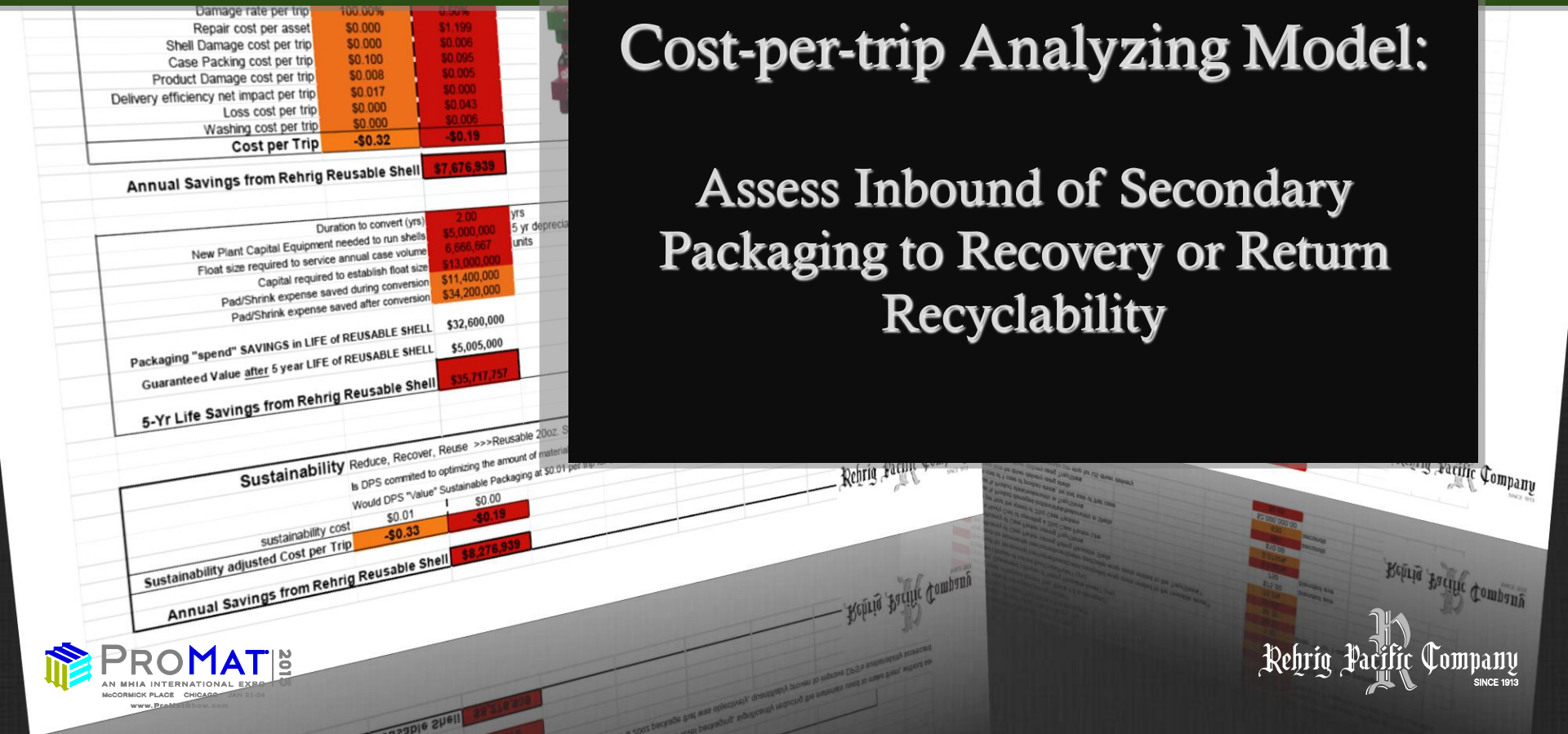
- GPS active tags for identifying specific loss
  - Can provide active location, hourly, daily, weekly, etc.
  - Tags can be expensive and large
- RFID passive tagging provides
  - Offers supply chain turn rate data
  - Over time, life expectancy of shells
  - Tags low cost and easily secured to assets
- Additional Value
  - Product traceability or recall
  - Can also track temperature on perishables

Regarding economics of reusable assets, is loss the most important thing?

1 Economics of Sustainability in Retail-Ready Intelligent Reusable Assets

Calculating Loss: Cost-per-trip Calculator

Cost-per-trip Calculator



Cost-per-trip Analyzing Model:

Assess Inbound of Secondary Packaging to Recovery or Return Recyclability

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Scenario #1: 6 Trips Annually

	Retail-Ready Intelligent Resuable Assets	One Way Pad / Shrink
Acquisition Price	$1.98	$0.15
Turns Per Year	6	1
Cost-per-trip	$0.20	$0.26

Loss: 10%

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Scenario #2: 10 Trips Annually

	Retail-Ready Intelligent Resuable Assets	One Way Pad / Shrink
Acquisition Price	$1.98	$0.15
Turns Per Year	10	1
Cost-per-trip	$0.25	$0.26

Loss: 50%

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6X

One Way Pad / Shrink:
$0.26
Rehrig Retail-Ready Intelligent Reusable Asset:
$0.20 (10% Loss)

10X

One Way Pad / Shrink:
$0.26
Rehrig Retail-Ready Intelligent Reusable Asset:
$0.25 (50% Loss)

2 Which one is more Environmentally Sustainable?

One Way (Renewable) or Reusable

1. Carbon Footprint or Global Warming Potential (GWP)

The measure of greenhouse gases (GHG) that are either directly or indirectly emitted to sustain a human activity, normally expressed in CO2 equivalent.

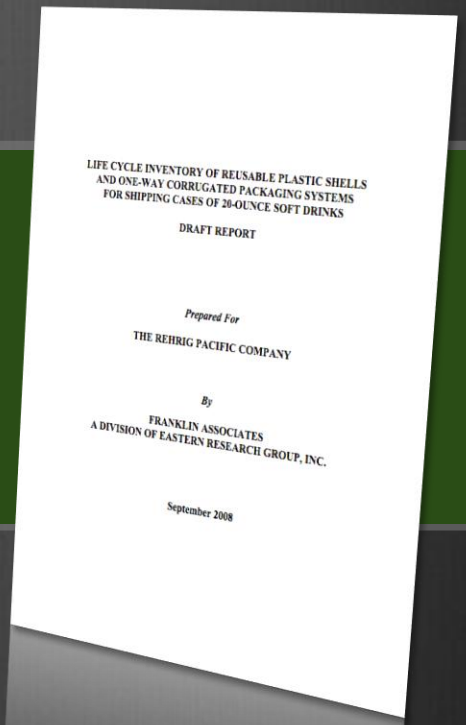
How do you measure carbon footprint?

2. Life Cycle Assessment (LCA)

A complex study that accurately calculates the carbon footprint of a product. LCA analyzes every single part or process involved in the life of a product and its effect on the environment.

2008 Franklin Study

Commissioned by Rehrig Pacific Company


LIFE CYCLE INVENTORY OF REUSABLE PLASTIC SHELLS
AND ONE-WAY CORRUGATED PACKAGING SYSTEMS
FOR SHIPPING CASES OF 20-OUNCE SOFT DRINKS

DRAFT REPORT

Prepared For

THE REHRIG PACIFIC COMPANY

By

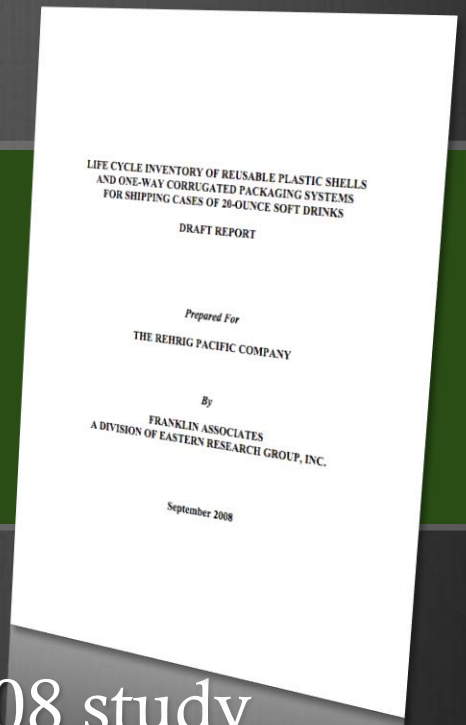
FRANKLIN ASSOCIATES
A DIVISION OF EASTERN RESEARCH GROUP, INC.

September 2008

In accordance with ISO 14000

Franklin Associates, an independent laboratory, used the Life Cycle Analysis methodology for determining the environmental impact of three packaging types.

2008 Franklin Study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September 2008

Franklin Associates' September 2008 study compared 1,000 cases of 20 oz. bottles packaged in the following three ways:

1. Retail-Ready Intelligent Reusable Assets
2. Corrugated Pad with shrink film, one-way
3. Corrugated Tray with shrink film, one-way

Measurement Analyzed

2008 Franklin Study

1. Energy use
2. Solid waste contribution
3. Greenhouse gas emissions

Life Cycle Analyzed

2008 Franklin Study

1. Extraction of raw materials from the earth
2. Materials and container manufacture
3. Outgoing transportation of containers
4. Backhauling of empty plastic shells, and recycling
5. End-of-life disposition

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Scenarios Analyzed

2008 Franklin Study

1. Baseline:

   Plastic crates: 10 turns/year, 6-year life, 5% annual losses

   Both corrugated packages: 25% recycled content, 95% recycling, 50% film recycling

2. Alternative: *advantage to one-way*

   Plastic crates: 10 turns/year, 3-year life, 10% annual losses

   Both corrugated packages: 50% recycled content, 95% recycling, 95% film recycling

Baseline Scenario Findings

 **Film with corrugated pad**	 **Film with corrugated tray**
Reusable plastic crates require 60% less total energy	Reusable plastic crates require 75% less total energy
Reusable plastic crates produce 91% less total solid waste	Reusable plastic crates produce 95% less total solid waste
Reusable plastic crates generate 64% less total Global warming potential (GWP) **Plastic crates generate 145 pounds CO2 equivalent, while corrugated with pads generate 407 pounds.**	Reusable plastic crates generate 81% less total Global warming potential (GWP) **Plastic crates generate 145 pounds CO2 equivalent, while corrugated with trays generate 762 pounds.**

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Alternative Scenario Findings

 **Film with corrugated pad**	 **Film with corrugated tray**
Reusable plastic crates require 9% less total energy	Reusable plastic crates require 46% less total energy
Reusable plastic crates produce 81% less total solid waste	Reusable plastic crates produce 89% less total solid waste
Reusable plastic crates generate 32% less total Global warming potential (GWP) **Plastic crates generate 244 pounds CO2 equivalent, while corrugated with pads generate 360 pounds.**	Reusable plastic crates generate 65% less total Global warming potential (GWP) **Plastic crates generate 244 pounds CO2 equivalent, while corrugated with trays generate 705 pounds.**

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3 Social Aspects of Sustainability

How can Retail-Ready Intelligent Reusable Assets be a meaningful contributor to "*doing the right thing*?"

Doing the “right” thing:

1. If can generate margin and profits, it helps sustain the environment and create jobs
2. If it lowers your GWP while saving money, it helps the planet and your business
3. Retail-Ready Intelligent Reusable Assets are both a good thing and right thing.

What are the values of Retail-Ready Intelligent Reusable Assets?

1. Increased sales
   - Flexible stacked merchandising
   - Point-of-sale opportunities
   - Obvious consumer appeal and preference
   - Improved shopper experience
2. Reduced time for drivers to deliver product, to be checked-in by customers.
3. Improved visibility of product identification, reduce mistakes by warehouse loaders
4. Increased stacking heights of product inventoried
5. Product protection, reduce unsaleables
6. Packaging Line speed improvements
   - Consistent dimensions
   - No dust from corrugated or wood from pallets

Reference: 52 Mass Merchandiser Club Market Test on an LRB

- Rehrig Pacific provided clear plastic formed sheets for a major bottler to perform a 52 Mass Merchandiser Club test.
- In 52 club stores, only formed sheets were used to ship and display product, no corrugated (corrugated is current packaging for major bottler)
- Test duration - 16 weeks, 348 control Mass Merchandiser Club stores for comparison
- Results of test:
  - Test store velocity increased 16.4 units per store, per week vs. control stores at 9.4 units per store per week
  - Test store change vs. year ago same period, increased by 27 points. During the test period, test stores had double digit increase in velocity every week except for one, compared with control stores.
- Note: A consumer preference test was also conducted through Virginia Tech where it was proven consumers preferred to shop for product from the plastic formed sheet versus the full depth corrugated box.

Formed Sheet vs Corrugate

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Merchandising possibilities with Retail-Ready Intelligent Reusable Assets

Brand Building

Cross Marketing

Display Quality

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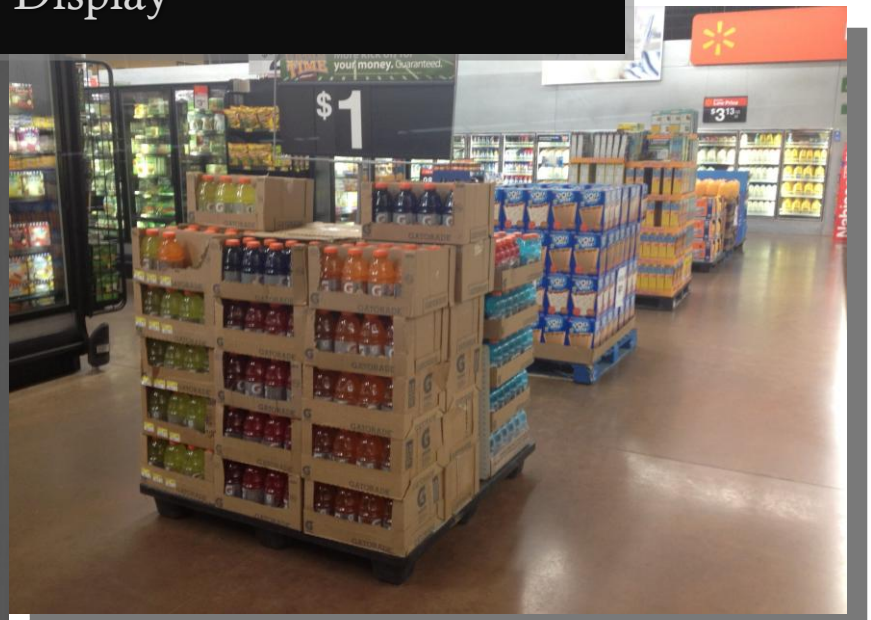
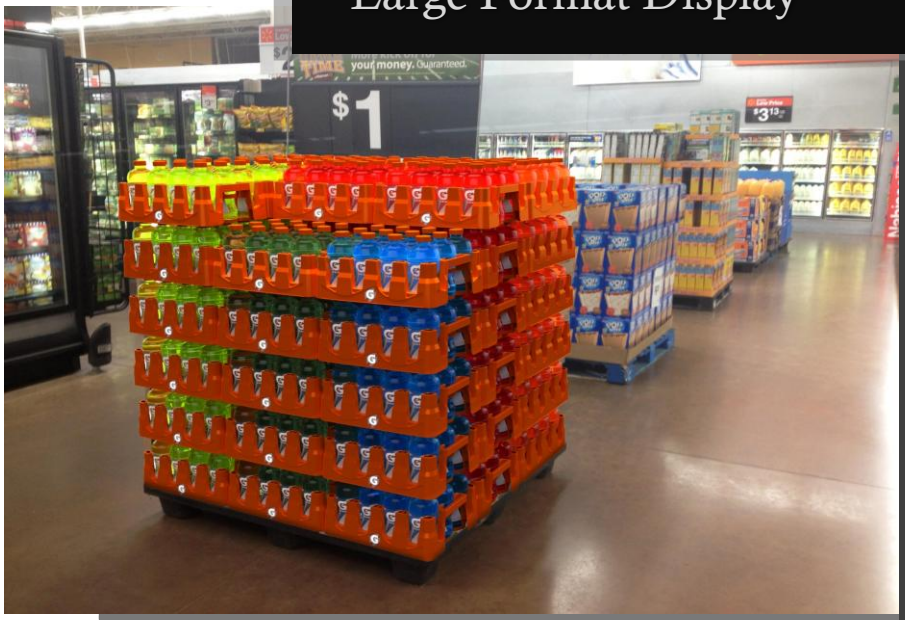
Retail-Ready Intelligent Reusable Assets

Current Large Format Display



Retail-Ready Merchandiser Large Format Display



Retail-Ready Intelligent Reusable Assets

Retail-Ready Intelligent Reusable Assets

Retail-Ready Intelligent Reusable Assets

Retail-Ready Intelligent Reusable Assets

Three things to take away today #1

Retail-Ready Intelligent Reusable Assets are environmentally more sustainable, emit less green house gas versus one-way corrugated tray and shrink film packaging.

Three things to take away today #2

Retail-Ready Intelligent Reusable Assets can be more economically sustainable.

- **Even with high loss rates, (high turns)**
- **Loss controlled through:**
  - **Technology**
  - **Retailer support**
  - **Accountability of route delivery personnel**
  - **Law enforcement/legislation**

Three things to take away today #3

Retail-Ready Intelligent Reusable Assets can improve:

- Sales
- Shopability
- Brand equity
- Reduce unsaleables

Thank You

Questions?

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