Use Reusables: Fundamentals of Reusable Transport Packaging

Resource Conservation and Recovery Strategies for Greenhouse Gas Emissions Reductions

Justin Lehrer – StopWaste.Org
November 15, 2012
Who Are We?

StopWaste.Org is an Alameda County, California Joint Powers Authority with state and county waste reduction mandates

- Waste management planning role
- Over 10 years working with business, institutions and residents on recycling, waste prevention & waste management
- Regional collaboration for sustainability objectives
What are Reusables?

Merriam Webster defines Reusable as:

re·us·a·ble adj \rē-`yū-zə-bəl\: capable of being used again or repeatedly

Reusable Packaging is comprised of pallets, containers, wraps, bands and dunnage designed for reuse within a supply chain.
Reusable Packaging is Not:

- Single use
- Limited use
Everyday Reusables
The Use Reusables Campaign

• Innovative and replicable approach
• Reducing greenhouse gas (GHG) emissions and solid waste associated with one-time and limited-use transport packaging materials:
  • Production;
  • Use; and
  • Disposal.
• Helping businesses convert to more sustainable reusable alternatives.
Made Possible by…

EPA Climate Showcase Communities

Grant funding supports the national expansion of the Use Reusables educational workshop events as well as free tools and online resources.

[Link to EPA Climate Showcase Communities]

The Reusable Packaging Association (RPA)

Promotes the value and expansion of reusable packaging systems. We are made up of 33 member companies encompassing all phases of the supply chain: Manufacturers, End Users, Technology Providers and Service Providers.

[Link to RPA website]
Many Benefits of Reusables

- Financial
- Environmental
- Health & Safety
Environmental Benefits
“Reduce & Reuse” are the Most Sustainable
Disposable Containers & Packaging are 30% of North America’s Municipal Solid Waste

- 56% of these valuable resources are wasted in landfills.
- The remaining 44% are recycled; often downcycled into less valuable products.
U.S. Greenhouse Gas Emissions

Over 1/3 of U.S. Greenhouse Gas Emissions are Attributable to Producing & Transporting Goods


(Provision of Goods: all consumer goods including building components and vehicles.)
Top 5 Materials Landfilled from Commercial Sector

1. Food Waste
2. Other Paper
3. Uncoated Cardboard **Boxes**
4. Unpainted Wood **Pallets**
5. Film Plastics **Stretch Wrap**
Environmental Benefits of Reusables

Reusable transport packaging containers

- generate 29% less total greenhouse gas emissions;
- require 39% less total energy; and
- produce 95% less total solid waste on average.

See Reusables 101 page 9
Financial Benefits

Revenue Enhancement
• Merchandising at Store Level
• Elimination of White Space at the Plant Level allowing more units sold

Capital Utilization
• Pooling/Rental of Reusables

Operating Expense Reduction
• Reduced Labor back of the stores or line side
• Reduced Total Freight Cost
• Material Substitution
Health & Safety Benefits
Health & Safety Benefits

- Reusable totes can **reduce injury from overfilling** non-uniform boxes.
- Reusable pallets can **reduce injury from broken pallet debris** hazards such as splinters, nails and wood on the floor.
- Ergonomically designed reusable totes can reduce **bending, lifting and handling injuries**.
- Reusable intermediate containers can **reduce injuries from rolling drums and chime removal**
Stability
Let’s look at some Reusables in action…
Peerless Coffee & Tea Company in Oakland, California replaced single use cardboard boxes with reusable totes for three of their Bay Area delivery routes.

- Saving 1.5 tons of cardboard per year
- Equals 18 tons of CO2 emissions avoided
Food manufacturer Premier Organics replaced disposable stretch wrap with reusable pallet wraps. Workers benefit from reduced stress and strain from wrapping dozens of pallets a day by hand, and the company and their supply chain partners avoid the time and cost required to dispose of the stretch wrap.
Reusables in Action

Reusable Totes

Office Relocation

Government agency StopWaste.Org used totes to pack and transport items during their office move.

- Rigid totes offered better protection of contents
- Dollies eliminated the need for heavy lifting.
- Elimination of cardboard boxes and tape saved set-up and clean-up time.
Example

Reusable Intermediate Bulk Container (IBC)
A large private flavoring company using fiber drums to transport their liquid product was faced with challenges:

- Chime removal and rolling drums caused injuries
- Limited volume capacity of drums was inefficient
- Limited truckload capacity = costly freight
- Required custom racking
- Large area of warehouse dedicated to storage
- Incurred costly disposal fees
Case Study Example

Solution:
Reusable Intermediate Bulk Container (IBC)

- Reusable
- Lower cost
- Environmentally friendly
- Efficient, less labor
- Truckload optimized
- Eliminates drum disposal
- Eliminates racking
- Eliminate drum related injuries
- Minimizes required storage
Case Study Example

Results:
Operational Efficiency

Fill 1 IBC (315-gallon) vs. Filling 6 Drums
Case Study Example

Results:
Reduce Required Storage Space

3,780 Gallons Empty  
or 1,575 Gallons Full

VS.

660 Gallons Full or Empty in Same Space
Case Study Example

Results:
Truckload optimization

1 Truckload of 315-gallon collapsed reusable totes (52,920 gallons)

vs.

5.25 Truckloads of drums (52,910 gallons)
How StopWaste can Help

• Training Opportunities
• Information Request Process
• Logistics Assistance
• Financial Assistance
• Become a model case study

STOPWASTE.ORG
Reducing the Waste Stream for Alameda County
How It Works

Outreach Activities
- Printed Collateral
- Presentations
- Website
- PR Efforts / Articles
- Direct Mail
- Print Ads
- E-Newsletters
- Dedicated Emails
- Local Awards
- Partnerships
- Online Calendars

Target Audience
- Wholesale/Retail
- Manufacturing & Assembly
- Food Production
- Food Delivery
- Scientific / Technical / Education
- Medical Care

Interested Prospects

Technical Assistance

Viable Prospects

RPA

Appropriate “Reusables” suppliers and vendors
How We Spread the Message

Education

• Industry & Partner Presentation
• Business Workshops
• Printed Collateral
  • Case Studies
  • Brochures: 101 & 102
• www.UseReusables.com
  • Reusable cost comparison tool
  • Free PDF downloads
  • Video clips
  • Workshop calendar & sign-up form
• Webinars
Training Workshops

• Balance of information dissemination and examples
• Explanation of benefits and solutions to common barriers
• Q&A
• Opportunity to delve deeper with experts over lunch
• Clarify the next steps in considering Reusables for their organization
For More Information

Visit UseReusables.com

- Download Free Case Studies
- Read Articles
- Watch Short Videos
- Use the Cost Comparison Calculator

Contact Me:

jlehrer@StopWaste.Org
Questions?

Reusables@StopWaste.Org

Justin Lehrer: (510) 891-6529

jlehrer@StopWaste.Org

Resources online at www.UseReusables.com