

Reusable Transport Packaging

What it Can Do for Your Business

A 30-minute presentation

Facilitated by:

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What we'll cover:



1. Reusable Transport Packaging
2. Benefits of Reusable Transport Packaging
3. What Makes a Good Candidate for Reusables?
4. Technical Assistance Available

Top 5 Materials Businesses throw away...

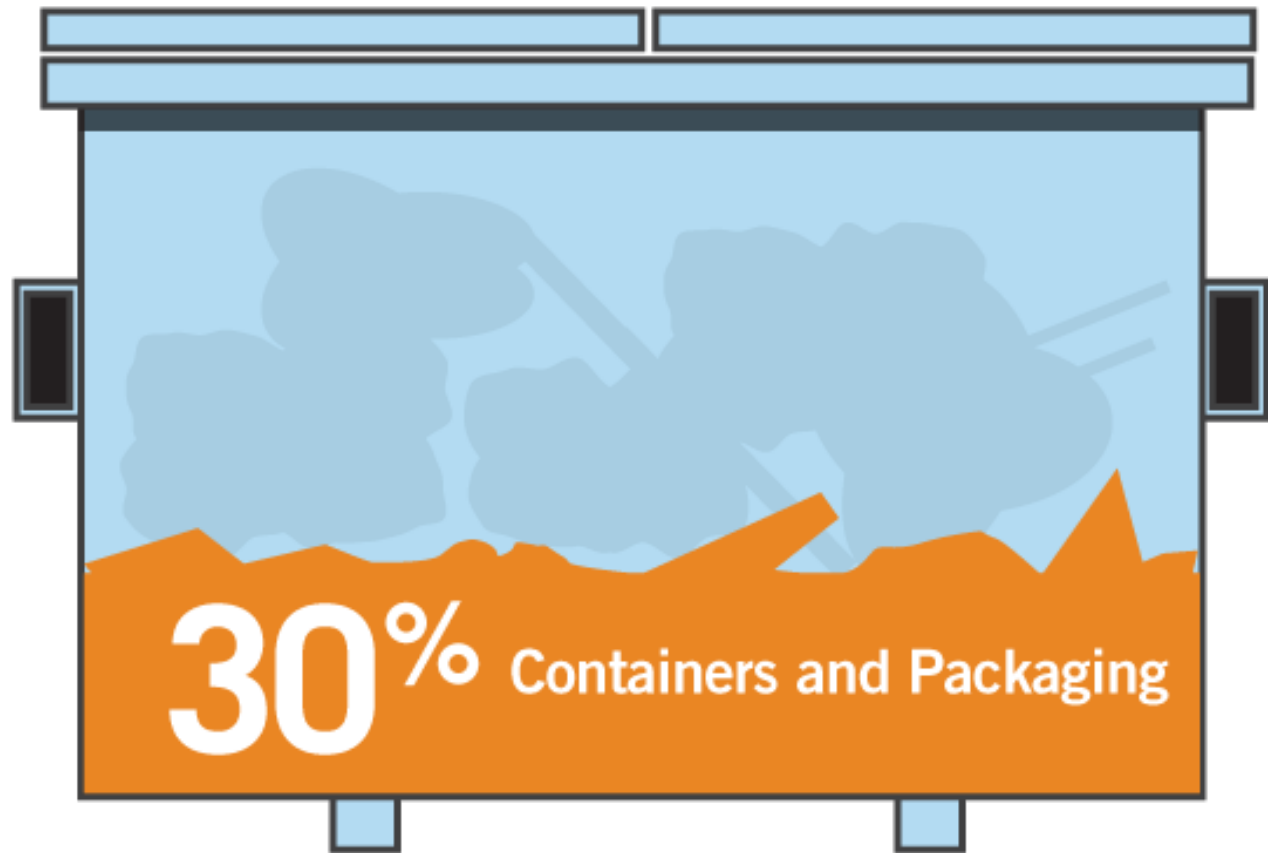
1. Food waste
2. Other paper
3. Cardboard *boxes*
4. Wood *pallets*
5. Film plastics, e.g. *stretch wrap*



...and they're paying for each piece.

Packaging in U.S. Solid Waste

Disposable containers & packaging are 30% of North America's Municipal Solid Waste (MSW)



Total MSW Generation (by category), 2008 250 million tons (before recycling)

Transport Packaging is used to move components, finished products or raw materials

Traditional pallets & boxes



~1-5
uses



Reusable alternatives



~5-10
years



Transport Packaging is used to move components, finished products or raw materials

Traditional drums and gaylords



Reusable alternatives



Transport Packaging is used to move components, finished products or raw materials

Other transport packaging



1-5
uses

Reusable alternatives



5-10
years



Reusable Transport Packaging

- Durable construction
- Typically never disposed of by the recipient
- Repeated use - lifetime is measured in years
- Can include special features



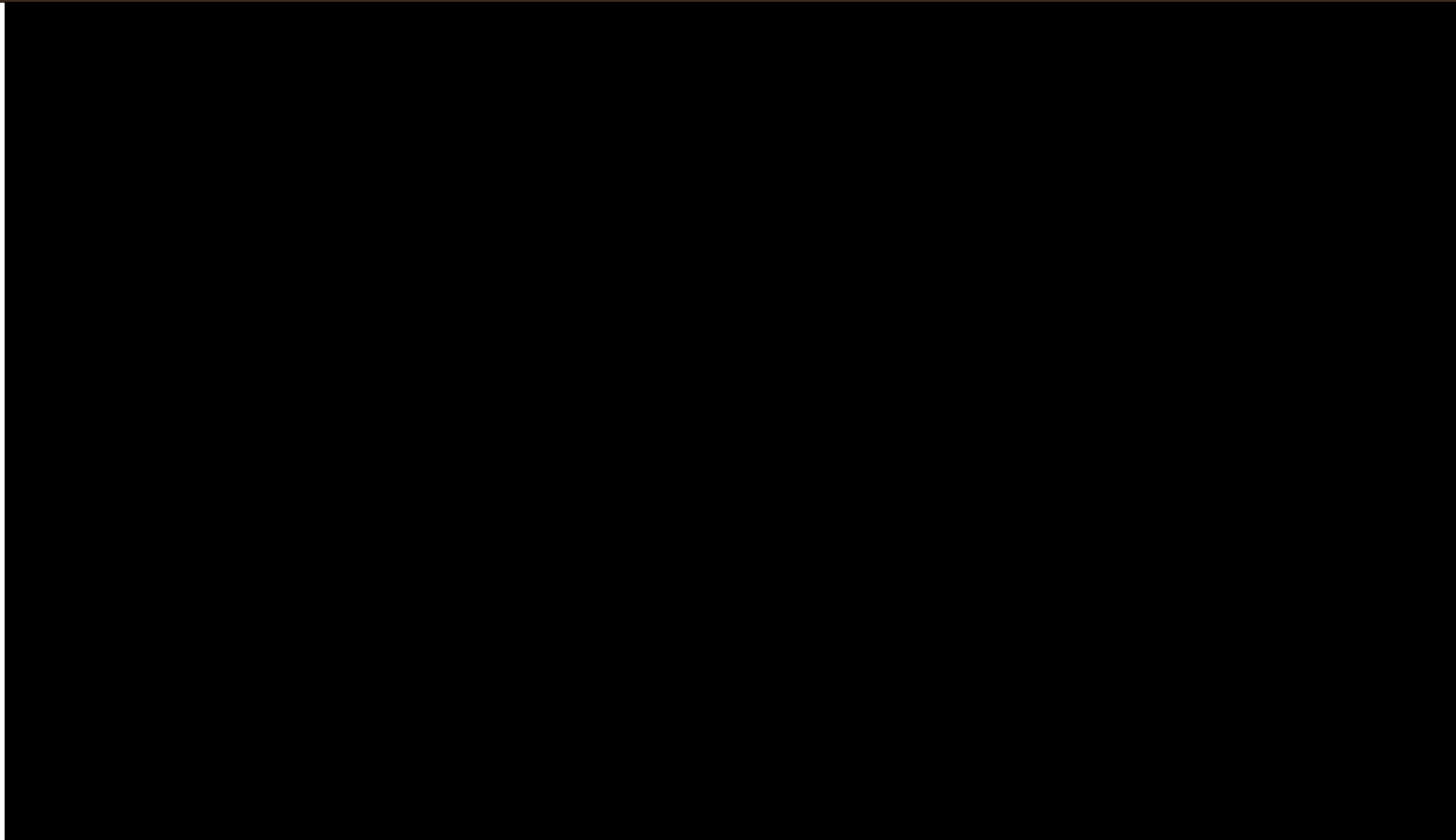
Benefits of Reusables



- ✓ Cost savings
- ✓ Better efficiency
- ✓ Better worker safety/ergonomics
- ✓ Better product protection
- ✓ Improved environmental performance & corporate responsibility

SUCCESS STORY

Safeway



[https://www.youtube.com/watch?
v=CrCLRsWQtX0](https://www.youtube.com/watch?v=CrCLRsWQtX0)

SUCCESS STORY

Ghirardelli Chocolate



Industry:

Food Manufacturing

Location:

San Leandro, CA

Reusables Used:

Reusable Handhelds & Totes

Company Snapshot:

Premium chocolate manufacturing facility with 360 employees, a rich heritage and \$400 million annual revenue. Ghirardelli controls entire process, from cocoa bean to finished product.

SUCCESS STORY

Ghirardelli Chocolate

Before: Recurring purchase of 4,500 fiber drums/year for delivery of one liquid ingredient. Drums are landfilled. Not recyclable or compostable.

Before



After: Trip lease program developed for delivery of ingredients in reusable totes.

After



SUCCESS STORY

Ghirardelli Chocolate

Results:

- ✓ Eliminating 46 tons/yr of fiber drum waste
- ✓ Preventing 59 tons/yr of food from going to landfill
- ✓ Eliminating use of 1,100 wooden pallets/yr
- ✓ Reduce stretch wrap use by 54,000 ft/yr
- ✓ GHGs estimated to eliminate 294 MTCO₂E/yr



SUCCESS STORY

PepsiCo

Industry:

Food & Beverage

Location:

Oakland, CA

Reusables Used:

Plastic Pallets



Company Snapshot:

PepsiCo bottles Gatorade in this 157,000-square-foot facility. Gatorade is the best selling sports drink in the U.S.

SUCCESS STORY

PepsiCo

Before:

- Pallets jamming the production line
- Wasted labor
- Equipment downtime
- Product losses

After:

- Leasing reusable plastic
- Plastic pallets uniform in dimensions
- Virtually eliminated production line jams

Adjustments made: Installed \$1,000 worth of photo sensors so the system could read the new pallets.



SUCCESS STORY

PepsiCo

Results:

- ✓ Significant cost savings from reduced product damage and equipment downtime
- ✓ Minimizes labor needed to sort out bad pallets
- ✓ Improves worker safety
- ✓ Conserves forest resources and lowers CO₂ emissions



SUCCESS STORY

Veritable Vegetable

Industry:

Food & Beverage

Location:

San Francisco

Reusables Used:

Plastic Pallets and mesh wraps

Company Snapshot:

120 employees, distributes high quality organic fruits and vegetables, active base of 500 customers and 220 vendors.



SUCCESS STORY

Veritable Vegetable

Before:

- Wooden pallets required 700 miles of plastic wrap per year.
- Used worker time to collect and bale discarded wrap.



After:

- Reusable mesh wraps and plastic pallets.
- The pallets and wraps are easier to use and produce less waste.



SUCCESS STORY

Veritable Vegetable

Results:

- ✓ 20 annual tons of GHG avoided, equal to taking 4 cars off the road/year
- ✓ Improved ergonomics for staff
- ✓ Practice in line with company's philosophy
- ✓ Significant cost savings from avoided shrink wrap purchases



Are reusables right for your organization?



The Use Reusables Campaign



- Helping businesses convert to reusable packaging.
- Reducing GHG emissions and solid waste from limited-use transport packaging materials.

Brought to you by:



“Use Reusables” Resources



- ✓ Technical assistance
- ✓ Cost Benefit Analysis
- ✓ Vendor facilitation & referral

Financial Analysis Tools

Net Present Value (NPV)

NPV = sum of the discounted net cash flows

Company: ABC Roasting Company

Assumptions	Enter Values
Equipment purchased: <i>Included in financial analysis:</i>	66 straight wall plastic containers, 2 hoppers
Purchases avoided:	\$85/week of cardboard boxes or \$4,250/year
Labor savings:	\$15/hour * 8 hours/week or \$6,000/year
<i>Not included in financial analysis:</i>	
Large customer's purchases avoided:	\$160/week on poly bags or \$8,000/year
Large customer's labor savings:	\$15/hour * 8 hours/week or \$6,000/year

$$NPV = \sum_{t=0}^n \frac{(\text{Benefits} - \text{Costs})_t}{(1 + r)^t}$$

where:

r = discount rate

t = year

n = analytic horizon (in years)

Year	Benefits		Costs		Net Cash Flow
	Description	Benefits Value	Description	Value	
0			Equipment costs	\$ 4,135	(\$4,134)
1	Purchases avoided	\$ 4,250			
	Labor savings	\$ 6,000			
	Year 1 Total	\$ 10,250	10% replacement	\$ 413	\$9,837
2	Purchases avoided	\$ 4,250			
	Labor savings	\$ 6,000			
	Year 2 Total	\$ 10,250	10% replacement	\$ 413	\$9,837
3	Purchases avoided	\$ 4,250			
	Labor savings	\$ 6,000			
	Year 3 Total	\$ 10,250	10% replacement	\$ 413	\$9,837
4	Purchases avoided	\$ 4,250			

Input | Charts

Reusables Cost Comparison Tool

This model compares basic cost differences of one way corrugated packaging and reusable plastic packaging. The model uses basic assumptions and requires you to input various cost components. While the model uses factual inputs from prospective users it is intended to offer guidance and not an absolute indication of exact cost benefits. More specific models are available to determine specific cost benefits once an overall feel for expected costs are understood.

Purchase Price

Enter your actual cost for a corrugated carton, and the cost of a comparably sized reusable container. Default values are provided.

Enter the cost of tape or other materials used to seal each carton.

	Corrugated	Reusable Handheld Container
Corrugated carton	1.00	7.50
Tape per carton	0.02	
Total purchase cost	\$1.02	

Dwell Time

"Dwell time" is the amount of time in days that a reusable packaging container will be held at various stages in your supply or distribution chain. In addition to time at your facility, be sure to also enter time at any distribution centers, transit time, time at the destination, and time for preparing and returning the container for reuse. All times are in full days. (Leave lines blank for rows that do not apply to your situation).

Analyzing GHG impact

- EPA's WARM model is used to determine GHG reductions
- Biggest factors affecting GHG reduction potential are:
Project size, material replaced, and how materials were discarded

Material	GHG Reductions (MTCO ₂ E/ton)
Cardboard (boxes, drums)	5.5 (2.5 if recycled)
Plastic Wrap (pallet wrap)	1.8 (0.84 if recycled)
Wood (pallets)	1.3

Join a community of industry leaders!



Interested?

Use Reusables representatives are available to help:

- ✓ Assess opportunities at your company & identify potential projects
- ✓ Estimate the cost savings
- ✓ Conduct an on-site assessment if needed (SF Bay area)

Website: UseReusables.org

- Reusables Basics
- Cost Analysis Tools
- Equipment & Service Providers
- Case Studies/Videos

The screenshot shows the homepage of the website Use Reusables.org. The header features the site name "Use Reusables" and the tagline "Reusable Transport Packaging Saves Your Company Money and Resources". A navigation menu includes links for Home, About Us, Reusables Basics, Cost Comparison, Case Studies, Resources, Events & Workshops, and Contact. The main content area is divided into several sections: a large video player titled "Intro to Reusable Packaging" showing a woman in a factory setting; a "Reusable Transport Packaging" section with a 3-minute intro video; a "Featured Case Study" for Tesla Motors & Veritable Vegetable; and three informational boxes: "Are Reusables Right For You?", "News & Events" (announcing grant funding), and "Stay Informed" (with a "Sign Up Now" button).

Use Reusables

Reusable Transport Packaging Saves Your Company Money and Resources

[Home](#) [About Us](#) [Reusables Basics](#) [Cost Comparison](#) [Case Studies](#) [Resources](#) [Events & Workshops](#) [Contact](#)

Intro to Reusable Packaging

0:00 / 3:40

Reusable Transport Packaging

What it is and how it can help you.
« [Watch the 3 minute intro video.](#)

Featured Case Study:

Tesla Motors & Veritable Vegetable

[View All Case Studies »](#)

Are Reusables Right For You?

Find out if Reusables make sense for your company with our **Assessment Checklist and Cost Calculator Tool.**

News & Events

Grant funding now available! Applications due 8/15. **More information**

Join a free 30-minute webinar to learn about reusables and available grants Two dates available: 7/15 & 7/24 **Register Here**

Stay Informed

Be the first to learn about relevant news and events!

[Sign Up Now](#)

Questions?

Visit our website www.UseReusables.Org or contact us:

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How do you use transport packaging?

Shipping

- Do you procure transport packaging, then pack & ship goods in TP using:
 - A. Closed loop shipping (local route “milk run”, producer > DC > producer or DC > stores > DC)
OR
 - B. Open loop shipping (one-way full truckload shipping <500 miles)
OR
 - C. Internal use (work-in-process)

How do you use transport packaging?

Receiving

- Do you receive & unpack goods in transport packaging:
 - A. From another division of the same company
OR
 - B. From a supplier with RTPs as an available option
OR
 - C. From a supplier for which you have sufficient buying power to influence the transport packaging toward RTPs)