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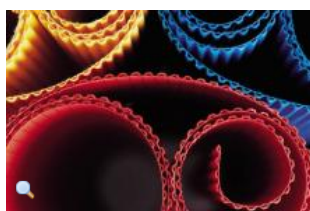
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Rules of Thumb for Reusable Packaging

By **William Atkinson** March 11, 2013 11:49:06 am

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Reusable transport packaging can replace one-time or limited-use (expendable) transport packaging materials with durable and reusable totes, bins, pallets and pallet wrap.

Many manufacturers have very effective recycling programs, designed to find creative uses for waste that exists within their plants, including packaging waste. But what if there were to a way to prevent packaging waste from even being created in the first place?

Transport packaging consists of wood pallets, wood crates, cardboard boxes and other containers that are used to ship ingredients, parts and products between and among manufacturers, distributors/wholesalers and retailers. It also consists of the wrapping materials used to hold shipments together, such as plastic stretch film.

Reusable transport packaging can replace one-time or limited-use (expendable) transport packaging materials with durable and reusable totes, bins, pallets and pallet wrap. These reusables are typically made of durable plastic, metal, or wood, and often incorporate recycled content.

Many companies can reap financial and environmental benefits by switching from expendable packaging to reusables. "As a rule of thumb, reusable packaging costs five times as much as expendable packaging, but it lasts 100 times as long," said Eric Fredrickson, president of Thor Consulting, Boston, Massachusetts, who specializes in reusable transport packaging consulting.

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In most cases, according to Fredrickson, the receiver of goods, rather than the shipper, benefits the most from reusable packaging. "As such, one of our goals is to get receivers to feel empowered to begin to ask their suppliers to make shipments using reusable packaging," he said. "The more pressure a company can put on its suppliers, the more likely it is that this will happen."

There is now an initiative designed to formalize and promote this concept. Launched in 2007, the Use Reusables campaign is a joint project of public agency [StopWaste.Org](#) and the [Reusable Packaging Association](#), a network of about 50 manufacturers, distributors and service providers/suppliers. Additional financial support for Use Reusables is provided by the U.S. EPA's Climate Showcase Community program. The campaign's goal is to help businesses and institutions assess and optimize the transport packaging materials and systems they use, either within their manufacturing processes or for product distribution.

Benefits include:

- **Improved cost:** Reusable packaging lasts longer, reducing material costs over time and significantly reducing the costs associated with packaging waste disposal.
- **Operational efficiency:** Since they are standardized and have durable design, reusable packaging products can streamline production processes and make loading dock operations more efficient.
- **Improved worker safety:** Reusable packaging eliminates the box cutting, staples and broken pallets that are associated with expendable packaging. In addition, reusable packaging comes in standardized and convenient sizes and weights that workers become comfortable and familiar with, thus helping to reduce worker lifting injuries.
- **Improved product protection:** Reusable packaging is more resistant to chemicals and moisture.

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offers stronger insulation, and is sturdier than one-time or limited-use packaging.

- **Improved environmental performance:** According to Use Reusables, reusable packaging generates 95% less waste and 29% fewer greenhouse gas emissions than expendable packaging.

While the benefits are numerous, reusable packaging is not for everyone. On the manufacturing side, it works well for manufacturers that:

- Ship and/or receive large volumes.
- Can arrange for quick turnaround times of containers (so they can be used with the greatest frequency, eliminating the need to purchase excess amounts of reusable packaging products that end up sitting around unused).
- Have a small number of supply chain partners who are open to change.
- Have some control over the supply chain process.
- Experience minimal changes/seasonality in quantity, specs or supply chain.

The reason minimal changes in quantity is important is that it allows the manufacturers to purchase a set number of reusable packaging and use it on a regular basis. If there are peaks and valleys in usage, the company might feel a need to purchase a lot of extra reusable packaging that would sit around unused except during peak times. "The goal of reusables is to use them as often as possible," said Fredrickson, who is also a Use Reusables team member. "Cost benefits are directly tied to how often you use them per year, so seasonal spikes would drive up the number of reusables needed, and therefore drive down the number of uses and therefore the ROI."

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Can you use a hybrid program, where you purchase reusables for an even flow throughout the year, and then use standard expendable packaging for the excess during peak periods? "Conceptually, it's feasible," said Fredrickson. "However, it would depend on the application. For example, you might have a perishable that cools much faster in a reusable, so you set up your cooling room for that. However, at the spike time, if you also use single-use containers, that could affect the cooling."

According to Justin Lehrer, program manager for StopWaste and leader of the Use Reusables campaign, some companies will convert certain lines to reusables, but keep other lines set up for expendable packaging for certain customers who specify expendable packaging, certain supply chain situations where expendable packaging makes more sense, or certain peak times of the year. For example, it may be more economical to serve large customers with reusables, and more economical to serve smaller customers with expendables.

While many of the products available for reusable packaging are well-known, such as totes, bins and pallets, one of the more innovative products involves replacing plastic stretch film with reusable stretch wrap. "Companies use a lot of stretch film, so being able to replace this can be useful," said Lehrer. "We have found two companies that manufacture reusable stretch wrap, and they are listed on our website. It is like a custom canvas that has expandable corners that can be wrapped around the load and then affixed with straps."

How long does reusable packaging last? It depends on the specific product, how it is used, and how often it is used. "Some reusable packaging lasts longer than others," said Fredrickson. "However, most of it is designed to last indefinitely, so you can continue to use it unless and until it gets damaged, lost or stolen."

There are no general or broad industry standards for reusable packaging. However, there are some standards for specific industries and applications. For example, according to Fredrickson, there are some standards for meat containers, for pallets in the retail industry, etc.

How is reusable packaging returned? It varies, according to Fredrickson. There are some closed-loop

systems, where the manufacturer delivers shipments to its customer, the customer unloads them, and then puts the reusable packaging that is sitting there from the previous delivery back on the truck, which returns them to the manufacturer. In other cases, the customer might accumulate the reusable packaging until it is economical enough to return it to the manufacturer, such as might be the case when there is enough to hire a truck for a full truckload backhaul shipment.

For readers interested in learning more about reusable packaging, there is a lot of information at Stopwaste.org. "We have a lot of free resources and information available on the site," said Lehrer. "We also offer training workshops." Currently, according to Lehrer, the organization is also developing some interactive calculators on the website to help users do "back of the envelope" calculations to see specifically how cost-effective reusables might be for them.

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