

Are you wasting pallets and money?

Pallets are used to ship products efficiently, with minimal damage to goods. In 1995, approximately 68,000 tons of wooden pallets and crates were thrown away in Minnesota.

The way your company manages pallets has an impact on the bottom line. Re-evaluating your pallet handling options may identify opportunities to save money and reduce what you throw away as waste.

How much do you spend on pallets?

New hardwood pallets sell for about \$9-\$10. Each year, roughly 500 million new pallets are manufactured in the United States.

The costs associated with pallets go beyond their purchase price. Companies also bear the costs of shipping, storing and handling pallets. If pallets do not protect your goods, it is likely that you are paying for breakage during shipping. If you *receive* parts or finished goods that are shipped using pallets, you must also pay for their disposal.

Examine your choice of pallets and how you manage them. You may be able to improve your materials handling and save money by changing your disposal methods for wooden pallets. Consider cost savings from:

- Reduced product damage due to pallet breakage.
- Reduced worker's compensation costs due to injuries from working with pallets.
- Lower waste disposal costs; fewer pallets thrown away as garbage.

Minimize waste from wooden pallets

For many firms, wooden pallets offer a cost-effective option for transporting products. Here are some management strategies for getting the most from your wooden pallets, and some alternatives to disposal.

Pallet rebuilding and reuse

Roughly 50 percent of all wooden pallets are designed to make just one "trip," but many pallets are durable enough for repeated use. Pallets in good condition may simply be reused; wood from broken pallets may be used to rebuild or repair others. There are many independent operations that will accept old pallets for reuse or repair. A standard pallet size is 48 x 40 inches; odd sizes may be difficult to reuse.

On average, wooden pallets are used for just 1.7 trips. When *buying* pallets, consider specifying more durable designs. For reuse within your company, durability means additional "trips" and long-term savings.

Pallet recycling

If pallets are broken or damaged beyond repair, they can be ground up for use as landscape mulch, animal bedding, compost, soil amendment, or core material for particle board. Pallet recycling avoids costs on waste disposal. Pallet recyclers often require 100 pallets or more for pick-up.

Pallet leasing

Consider a pallet leasing program. In a "pallet pool" leasing system, many large users of pallets lease from a pallet rental service which allows them to reuse pallets within a large network.

Sample Pallet Cost Comparison *

	Hardwood	Softwood	Plastic	Corrugated/Plastic
Cost (new)	\$9.00	\$6.00	\$60.00	\$4.00
Cost (rebuilt)	\$6.00	N/A	N/A	N/A
Estimated Life	25 trips	2 trips	100 trips	5 trips
Cost per Trip	\$0.36	\$3.00	\$0.60	\$0.80

**Note: The cost comparison above is intended for illustrative purposes only. Actual costs to your firm will vary. Other factors that affect costs include transportation costs, actual life expectancy, quantity discounts, etc.*



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Success Story

In 1994, **Frigidaire Freezer Products**, St. Cloud, Minn., implemented a new reusable transport packaging system. This included working with one of their suppliers to switch from wooden pallets to covered, collapsible, plastic palletized containers. Frigidaire prevents 12,000 pounds of waste and saves approximately \$5,200 annually.

Alternatives to wooden pallets

Pallet waste can be reduced in other ways. Consider options that replace wooden pallets with alternatives that are more durable, reusable, lighter weight, or use less material than wooden pallets.

Reusable pallets

Durable, reusable pallets – made from plastic, corrugated cardboard, or combinations of these materials – are becoming more widely used in shipping. Reusable pallets are often more expensive initially, but are designed for more trips, which saves money in the long run. Reusable pallets are most economical in closed loop distribution systems.

Some things to consider in a reusable pallet program:

- Is your shipping system closed or open loop?
- What is the average weight of a pallet load?
Is the load stackable and/or stable?
- How frequently are pallets shipped?
- What type of storage system? Is it rackable?

Slip sheets

Slip sheets are five foot square corrugated or plastic sheets onto which products are loaded. They are lighter, cheaper and more compact than pallets. Several large U.S. companies, including Xerox and Apple Computer, have implemented use of slip sheets to reduce weight and waste. Slip sheets can be used with fork lifts, but require special attachments.

Success Story

Home Depot, a chain of home improvement stores, saved \$2 million in the first year of a program that asked suppliers to use slip sheets rather than pallets. Use of slip sheets lowered transportation costs and reduced disposal costs significantly.

For more information

The **Minnesota Office of Environmental Assistance (OEA)** can answer your questions about reducing pallet waste. In addition, staff are available to make presentations, offer referrals, and provide you with additional resources on source reduction. For more information, call the OEA at 651-296-3417, toll-free 800-657-3843, or visit <http://www.moea.state.mn.us>

- **Transport Packaging: Reducing Waste and Saving Money** (Video) has examples of businesses that changed over to reusable transport packaging, describing the process and the costs of doing so. Available for purchase or a free, two-week loan.
- **Directory of Pallet Remanufacturers and Recyclers** lists pallet rebuilders, grinders and brokers in and around Minnesota.
- **Reusable Transport Packaging Directory** lists manufacturers and suppliers of many types of reusable transport packaging.
- **Fact sheets** to help businesses recycle common transport packaging wastes — pallets, plastic film and corrugated cardboard.

The **Minnesota Technical Assistance Program (MnTAP)** helps companies save money through recycling or preventing industrial and solid wastes and by finding alternatives to using hazardous materials. Call MnTAP at 612-627-4646, toll-free 800-247-0015, or visit their website at <http://www.umn.edu/mntap>

Minnesota Waste Wise is a non-profit assistance program designed to help businesses create less waste, reuse more, and find new markets for waste materials. A program of the Minnesota Chamber of Commerce, Minnesota Waste Wise helps develop effective waste reduction and recycling programs. Benefits of membership include newsletters, a guidebook, site visits and individualized assistance. Membership is \$100. Call 651-292-4681 or toll-free 800-821-2230 for more information, or visit the Waste Wise website: <http://www.mnchamber.com/affiliate/waste.htm>

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