

Eating Outside the Box by Dan Imhoff

The stuff of our lives — perishable and processed, luxurious and essential, mass-marketed and handcrafted, manufactured and farmed — arrives safely and conveniently, thanks to a complex web of wraps, packs, and pallets.

Yet this packaged world also comes to us at an undeniable cost. In the U.S., containers and packaging materials constitute 32 percent of the municipal solid waste stream, over 800 pounds per person annually. To keep goods moving, 500 million new wooden transport pallets (enough material on a volume basis to frame 300,000 houses) are added each year. More than 80 percent of these pallets are used once before being ground up, incinerated, or thrown away.

School lunches contribute significantly to the waste stream. An average elementary school student eating homemade lunches is estimated to generate between 45 and 90 pounds of Ziploc™ bags, foil pouches, and other packaging waste each year, roughly equivalent to the body weight of a third- to sixth-grader. The 29 million meals provided daily by the National School Lunch Program often arrive preprocessed and packaged. They are shipped over long distances, accompanied by individually sealed disposable plastic fork, spoon, and paper napkin sets, industrially lathed carrot nubs in handy pouches, or syrupy medleys of fruit in plastic cups with foil caps. Studies suggest that the food and packaging that kids throw away can be as much as 60 percent by weight and volume of what they are served.

Upstream in the waste stream. Overloaded landfills aren't the only issue. The environmental costs of disposing of packaging are dwarfed by the costs of making it in the first place. Plastics, the fastest growing segment of the packaging industry, use shrinking fossil fuel reserves. Their manufacture and incineration can release cancer-causing dioxins. But choosing paper over plastic doesn't solve the problem. Pulp and paper industries are among the most polluting. Overall, about 60 percent of modern packaging materials, including paper and cardboard, are made of wood, from forests that we're depleting faster than they can renew themselves.

Just because it has a recycling symbol doesn't mean it will be recycled. Delivering recyclables to the curbside or collection center is no guarantee that they will be reborn as useful products. When the costs of recovering and transporting materials exceed those of using nonrecycled ones, items from curbside bins and collection centers often end up in landfills. Especially plastics: only Numbers 1 (PET, polyethylene terephthalate) and 2 (HDPE, high-density polyethylene) have significant recycling rates.

Market dynamics shouldn't deter us from avid recycling. "A tray that successfully enters a

recycling loop will return to a store shelf within three months and save significant amounts of materials and energy over virgin aluminum," says Marissa Juhler, an educational spokesperson for Waste Management Inc. in Davis, California. But even when efficient, the recycling of paper, glass, aluminum, and plastic requires boatloads of energy and releases byproducts into the air, water, and ground. The true challenge lies in minimizing or eliminating packaging in the first place—before it becomes waste.

Some Strategies for Reducing Packaging

Emphasize Reusables. The single-serving container is primarily a post-World War II phenomenon, but only in recent decades has disposability become the norm. Americans now purchase and throw away over 300 million hot and cold take-out beverage containers each day. One out of every three servings of water is taken from a plastic bottle. While a prepackaged meal is consumed in minutes, the Styrofoam™ container, coated paperboard tray, foil-coated wrapper, and shrink-wrapped plastic fork could stick around for decades or even centuries.

Kids can make a small but meaningful dent in the 45 million water bottles purchased every day — 90 percent of which are thrown away — by hydrating themselves from the school water fountain and using it to fill their personal reusable water bottle. Many schools have undertaken the repair of fountains in order to encourage a switch from sodas to water. It's also a reasonable way to provide free liquid refreshment to all students and to reduce the use of throwaway containers. Small things add up. When they carry their own mugs, thermoses, or cups, or use the cafeteria's glass or ceramic cups, kids can eliminate between 80 and 99 percent of the harmful emissions associated with the manufacture of disposable paper or foam cups.

Buy in bulk. "The amount of packaging used per unit of product is substantially more for smaller products," writes Nancy Hirschberg, vice president of natural resources for Stonyfield Farm. Their lifecycle study on yogurt containers revealed that switching to 32-ounce containers from the single-use 8-ounce cups normally packed in school lunches and served at school would save 12,000 barrels of oil per year. Parents can purchase food in larger containers and pack individual servings in reusable cups. Bulk purchasing usually saves money, too.

Buy fresh. Fresh foods sold at farmers' markets are usually offered free of packaging. Shoppers can bring their own reusable shopping bags from home. Preparing school meals from local and sustainably grown foods saves on packaging — and improves the freshness, nutritional quality, and taste of the food. Supporting a vital local farm economy also helps to keep land in agriculture and provides a lifelong appreciation for and understanding of how food reaches the table.

Put your money where your mouth is. Over 1,000 Community Supported Agriculture (CSA) farm programs now sell advance "shares" in their harvests, guaranteeing weekly deliveries of a variety just-picked fruits and vegetables, which are typically grown organically, throughout the growing season <www.sare.org/csa/>. Just as farm-to-school meal programs reduce waste and increase quality, a CSA share is the ideally integrated household-scale product and package. It strengthens the relationship between producer and customer and revolves around a refillable delivery system: a simple cardboard bushel box.

Develop a packaging policy for school lunches. The Edna Maguire School in Mill Valley, California instituted a "Pack - In, Pack - Out" program requiring students to take all their

lunch packaging home. Packing it out subsequently generated tremendous savings through reduced dumpster charges. In Santa Cruz, entrepreneurs Amy Hemmert and Tammy Pelstring created a compartmentalized, interlocking, reusable Laptop Lunch System based on the Japanese bento box <www.laptoplunches.com>. They then teamed up with parents, students, and teachers in their local school and founded the Waste-Free Lunch Program <wastefreelunches.org>. This is now a national movement that includes composting, recycling, and other steps toward less wasteful and more satisfying lunches.

Turn the waste stream into a resource. For nearly a decade, woodshop students at Merced High School in California have been engaged in a unique repackaging effort. Organized as an entrepreneurship class, the students salvage plywood from fruit bins destined for the landfill. They then turn the recovered materials into homes for barn owls, kestrels, wood ducks, bluebirds, and other creatures whose habitats have been depleted. This has a direct benefit to the farms that use the fruit bins in the first place. Barn owls provide a natural biological defense against pocket gophers and other rodents that attack crops. The program, started by now-retired woodshop teacher Steve Simmons, has produced upwards of 8,000 birdhouses purchased by farmers, generating over \$150,000 in scholarship money for students.

Keep the Faith. All packages have impacts, regardless of whether they're refillable, contain recycled materials, or not. They're also indicators of our attitudes toward issues with broader implications — for instance, food quality, public health, and our connection or disconnection with nature. What we do about packaging serves as one measure of how closely our consumption patterns match our values and aspirations for ourselves, our children, and the planet. When paying attention to everyday personal and institutional choices becomes a positive and enjoyable part of self-reflective and engaged living, decisions about seemingly mundane objects — boxes and bottles and bags — take on new meaning.