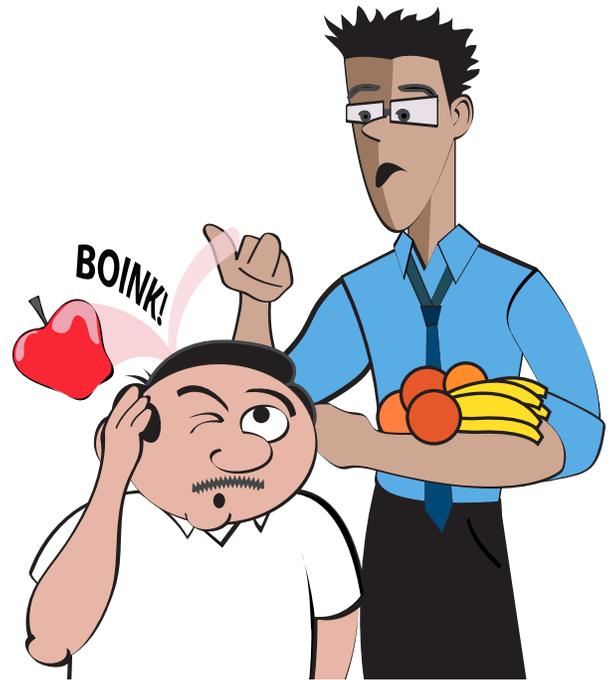


Source Reduction

Source reduction is the top solid waste priority of the U.S. Environmental Protection Agency (EPA). Source reduction stops waste before it starts by decreasing the amount of materials used during the manufacturing or distribution of products and packages. Typically, this process also results in less energy to manufacture and transport. Source reduction reduces releases to air, land and water. For example, it takes less fuel to transport lighter weight materials. In addition, source reduction cuts back on what has to be thrown away and helps keep solid waste disposal costs down. Some specific examples of source reduction practices are:

- Redesigning products to use fewer materials (e.g., lightweighting, material substitution)
- Reusing products and materials (e.g., a refillable water bottle)
- Extending the useful lifespan of products (e.g. increased time for a rechargeable battery)
- Avoiding using materials in the first place (e.g., reducing junk mail)

Many packages have been redesigned to use less material called “lightweighting” but remain just as strong. Lightweighting means redesigning a package to use less material, which also tends to make it weigh less. As early as 1983, companies manufacturing food service disposables began reducing waste by decreasing the paper stock required to manufacture food service containers and coating the containers with a very thin layer of polyethylene or wax. The coating enables the container to maintain its strength and food-protection functions. Manufacturing of all types, plastic, paper, glass, steel and aluminum, have examples of lightweighting. The glass container initiative has been termed right-weighting, rather than lightweighting. Aluminum beverage cans are now 26% lighter than they were in 1972. Plastic 2-liter soft-drink containers are 21% lighter than in 1977 and 16-oz glass beverage bottles are now 30% lighter than 10 years ago.



Source reduction in product packaging isn't always easy to find. Sometimes the easiest way is to look for the same type of product in different packages or use these suggestions.

- Buy a concentrated product. Concentrates come in containers that use less packaging material per product usage and use 15-50% less packaging than other similar non-concentrated products.
- Buy the large or economy size container you can use efficiently. These products may use less packaging in the long run.
- Buy refill systems. These containers hold product which is intended to be poured into an empty primary container for use. This method uses 15-80% less packaging than primary containers.
- Buy combination products, such as laundry detergent with bleach or fabric softener in one package.
- Buy packages made with recycled materials. The content in recycled plastic containers may range from 25-100%.

Source reduction is not the same as recycling. Recycling is collecting already used materials and making them into another product. Recycling begins

at the end of a product's life, while source reduction first takes place when the product and its packaging are being designed. The best way to think about source reduction and recycling is as complementary activities: combined, source reduction and recycling have a significant impact on preventing solid waste and saving resources.

Recyclability and recycled content play an important role in packaging. Products may be marked in a variety of ways with the recycling chasing arrows symbol. The traditional recycling symbol means the product is recyclable. However, this logo is not regulated nor is there a national standard. Products marked with the word recyclable or with the recycling symbol may or may not be made of recycled material.

If the recycling symbol has a circle around it that means it contains recycled content. Products and/or their packaging made with recycled content may use the word recycled, the phrase "made of recycled materials", or a phrase with a similar meaning. The product information may also include the percentage of post-consumer waste included in the material. This phrase is most often found on paper products.

The ability for a product to be or not be "recyclable" is dependent upon global recycling markets. If there isn't a manufacturer making a new product from a recyclable commodity, there is no need to collect and process the material because there is no demand to use it as feedstock for a new product. Recycling markets are an excellent example of supply and demand.

Packaging can be made more sustainable by applying the principles of product stewardship, a product-centered approach to environmental protection. It calls on those in the product lifecycle—manufacturers, retailers, users, and disposers—to share responsibility for reducing the environmental impacts of products. Principles include: eliminating toxic constituents; using less material; making packaging more reusable; using more recycled content; and/or making it more readily recyclable. Many countries require manufacturers to take back packaging discards or pay for their recycling. There are no federal-level packaging mandates of a similar nature in the United States.