

SOLID WASTE MANAGEMENT

WASTE NOT The Five Rs

LIBRARY

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When you go shopping, consider the five Rs: Reducing, reusing, recycling, rejecting, and responding. The five Rs can be the basis for making environmentally aware decisions about the products and packaging you purchase, use, and ultimately discard.

Products and packaging designed for single use can increase disposal costs, deplete natural resources, contribute to litter, and add to our nation's waste disposal dilemma. Damage to the environment may occur when raw materials are mined, drilled, or otherwise extracted and then transported to the factory. Air and water pollution occur during product manufacture, storage, and transportation to the retail store.

For example, the production of coal, oil, or gas-fired electrical energy can create atmospheric pollutants. Hydroelectric power is not without its environmental effects. To create the power source, thousands of acres of land are dammed and inundated. As a result, the river ecology and wildlife habitat are destroyed. The transport of fossil-based fuels can degrade the environment when spills occur in the ocean.

Thirty percent of household waste is packaging. It cannot be completely eliminated because it plays a necessary role in marketing and distribution systems. Packaging keeps food safe, gives a greater variety of product choices, provides convenience, aids in transportation, and furnishes information.

Reduce

Consumers have become hooked on convenience and pay millions of dollars for it. Many consumers prefer to buy 16 one-use spray bottles full of ready-to-use

cleaner rather than a single bottle of concentrate and mix their own. Why? Consumers like convenience!

Many consumers, however, are willing to give up some of that convenience to reduce their garbage production. They reduce their garbage before they buy it through precycling. When you precycle, either you choose products and packaging with less environmental impact or you decide to do without them. If you never buy it and bring it into your home in the first place, then you don't have to manage the waste. You don't have to figure out if it can be reused or recycled, and you don't have to dispose of it.

Reducing can make a difference. Compare the packaging material in two quart containers and one half-gallon container. The two quarts use more packaging than the one half-gallon container. If 70 million American households bought one half-gallon container of milk a week instead of two quarts, they would reduce paper discards by 41.6 million pounds or plastic discards by 5.7 million pounds a year. This would save \$145.6 million in packaging and enough energy to heat and cool 7,500 households for an entire year.

In some cases only a certain type of packaging can provide convenience. But where convenience is marginal or not that important choosing less is best, from energy, conservation, and environmental points of view.

Reuse

Present-day packaging is a wonder of modern technology. It is durable, versatile, and attractive. Whenever you can, think of ways to reuse packaging.

Reuse will save energy, materials, and landfill space and reduce pollution.

Here are some ways to reuse packaging:

- ✓ Drawstring mesh citrus bags make good laundry bags. Hang one off the doorknob in each child's room. (Use only for children old enough to handle the string safely.)
- ✓ Frozen and microwavable convenience foods often come with their own dish. Reuse these dishes by refilling them with leftover foods, wrapping them properly, and storing them in the freezer for instant meals.
- ✓ Store items in plastic bags and wraps.
- ✓ Reuse packing materials such as polystyrene and plastic quilting for the same purpose.
- ✓ Use plastic containers for food storage, scoops, or watering devices. Glass jars can help organize nails, tacks, and other household and shop items.
- ✓ Donate empty containers to schools, child care centers, and senior citizen centers that can use them in projects.

Packaging provides an excellent resource for your creativity. You paid for it — you might as well reuse it again and again.

Recycle

Recycling is an important part of our waste management strategy. Some states are passing laws to reduce solid waste through recycling. Recycling packaging saves energy (Table 1). Recycling aluminum cans yields the greatest energy saving. In fact, if every day for one year each member of a family of four recycled one can, they would conserve the amount of energy required for a 30-mile-per-gallon car to travel about 2,000 miles. We cannot afford to waste either the aluminum or the energy. Recycling is important to everyone.

What kinds of packages can you recycle? Aluminum cans and glass bottles and jars are recyclable. Some paper and some plastic containers are also recyclable. Steel or "tin" cans are recyclable, too. Any of these

packages are easier to recycle when they are made of a single material, rather than a mixture of two or more.

Table 1. Potential savings in energy use from making products from recycled instead of virgin materials.

Product	Savings in energy use
Aluminum	95%
Plastics	88%
Newsprint	34%
Corrugated cardboard	24%
Glass	25%

Sources: Stauffer, R. F. 1989. Energy savings from recycling. Resource Recycling 7(7):24-25.

Johannesen, R., mechanical engineering specialist, Institute of Food and Agricultural Services, University of Florida. 1990. Personal computations.

Closing the loop

The success of recycling depends on everyone. Providing used materials to be collected and reprocessed is only the beginning. No material is really recycled until it is purchased after being made into something new. Try to buy recycled materials whenever you can. Look for the recycled symbol on packages you buy.



Reject

Consider rejecting excessive packaging and packaging that cannot be reused or recycled. You hold the most powerful tool in our economy — your wallet. If you buy products and materials that are wasteful, harmful to the environment, or of poor quality, you send the message that these products should be produced. On the other hand, you send an environmental message if you do not buy them. The marketplace will listen, either way.

Respond

There will be times when you have no packaging choices. A product you want to buy may not be available in a recyclable or reusable package. Perhaps the package of your favorite brand has been redesigned to incorporate several types of materials rather than one, or maybe your grocer doesn't stock concentrates.

In each of these cases, it is time for the fifth R: Respond. Start with your local store managers. Let them know you are concerned about solid waste. Encourage them to consider source reduction and recyclability in the products they offer for sale by stocking refills, concentrates, and loose products.

Contact the manufacturers of products whose packages are not recyclable or are obviously excessive. You can ask manufacturers to make recyclable or reusable packaging and use nontoxic inks. The name and address of the manufacturer are listed on the

package of all consumer goods, and many companies offer a toll-free telephone number. Look for this information on the package or contact your local consumer affairs office or library to get telephone numbers for major companies. It takes only a few letters or phone calls for manufacturers to consider changes in their products.

Encourage local government officials to start or expand a recycling program in your community. Suggest that government regulations be revised to allow for the purchase of recycled materials by government agencies.

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