



Maintaining the Home

***Reduce
Reuse
Recycle***

Maintaining the Home: Reduce-Reuse-Recycle: Alternatives for Waste Management

As a nation, we continuously generate more garbage and we are running out of space in existing landfills. Ineffective or irresponsible disposal of this waste can pollute the environment and pose a public health risk. Additionally, people don't want a landfill, incinerator or recycling center in their neighborhood.

Waste Management

People are beginning to realize that the solution lies in using garbage as a resource rather than refuse to be destroyed. Communities, by their own choosing, or by government mandate, are now recycling to reduce the waste stream.

To manage waste, the Environmental Protection Agency (EPA) and the Solid Waste Act favor an integrated solid waste management strategy that includes parts: 1) reducing the amount of solid waste generated; 2) recycling as much refuse as possible; 3) transforming waste environmentally and safely; and 4) continuing safe land filling.

Reducing and reusing are the most viable alternatives, however, no single method will solve the waste problem as effectively as a comprehensive program that relies on a number of solutions for different situations. Source reduction (elimination of unnecessary packaging, and buying and using fewer toxic products) and recycling are the methods of choice, for which the direct involvement of citizens is essential. Land filling and incineration should be used only for the waste that cannot be used as a resource.

Reducing the Waste Stream

Reducing the waste stream is the most significant waste management option. If we never generate the waste, then we do not have to dispose of it. To reduce the waste we produce usually means lifestyle changes. Reduce the amount you buy in the first place. Purchase only the amount you need. By becoming better environmental shoppers we can reduce the waste we generate.

What Can We Do?

Each person adds to the waste management problem. If each household reduces its waste, the problem will be reduced. You can start by analyzing what you throw away at home.

Think about the goods and services you buy and the activities you support. In what ways do they contribute to the solid waste problem? How could you purchase and dispose of items in ways that generate less trash? What can you do to voice your opinion about solid waste issues in your community?

For example, consider:

- Buying goods in returnable and recyclable containers.
- Learning where you can take items to be recycled; then show your support by recycling.
- Reading labels and learning more about the contents in household products. Try not to purchase items with harmful ingredients.
- Letting store managers and manufacturers who

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are making good environmental choices know that you recognize and appreciate their efforts.

- Requesting larger quantities and sizes of products by introducing a bulk buying section for grains, pasta and other dry goods.
- Using consumer hotlines provided as a service by many food companies. Explain the need for environmental shopping and why you support it. Companies are very interested in how their products are perceived by consumers.
- Asking manufacturers to consider these areas when designing packaging by:
 - Planning for recyclability, both in design and material choice.
 - Eliminating excessive packaging.
 - Having more reusable or refillable packages.
 - Using creative thinking to find less wasteful solutions to theft prevention and shelf marketing.
 - Substituting non-toxic pigments and stabilizers.
 - Designing plastics for return and refill.
 - Concentrating on the best and most efficient methods for minimizing the generation of waste.

These actions require cooperation among businesses, stockholders, government, employees, the general public, consumers and others. They also involve changes in lifestyles and values.

Select Durable Items

Select products that are durable, easy to repair, have good warranties, are energy efficient, functional and non-polluting in both manufacture and use. Disposable items such as plastic plates, polystyrene cups, razors, pens, cameras, watches and other items all end up in the landfill. Invest in durable materials that you

can use over and over again such as using cloth for napkins.

Some throwaway items that cause concern include:

Disposable razors. Annually, more than two billion disposable razors are bought in the U.S alone. Today's disposable razors, made from plastic and steel can occupy space in the landfill for many years. Invest in a quality razor and change the blade or use an electric razor.

Disposable diapers. Disposable diapers are made of an outer layer of waterproof polypropylene plastic. Sandwiched in between the plastic and water repellent liner is a thick layer of an absorbent cotton-like material made from wood pulp. It is estimated that 75,000 metric tons of plastic and 1,265,000 tons of wood pulp are used every year to make disposable diapers in the U.S. About five million tons of dirty diapers are buried in landfills in the U.S. each year and consumers spend at least \$100 million annually to dispose of these.

Batteries. Certain kinds of batteries are recyclable, however, many find their way into landfills or into incinerators where they should not be. Shop for the longest lasting batteries or rechargeable ones. Often batteries can be traded in when a new battery is purchased as batteries create a disposal problem.

Tires. More than 200 million tires are discarded each year in the U.S. You can help reduce this amount by buying high-mileage tires and by maintaining proper air pressure in your tires. Remember to check tire pressure every other time you fill your fuel tank.

Paper products. Minimize your use of paper towels, paper plates and napkins. Invest in cloth napkins for everyday use and use reusable wiping cloths, towels and plates rather than paper throwaways.

- **Consider Packaging**

One of the best ways to reduce municipal solid waste is to limit packaging. Packaging comprises about 40 percent of the solid waste stream according to a Franklin Associates study for the EPA. It accounts for 50 percent of all paper produced in the U.S., 90 percent of all glass and 11 percent of all the aluminum. One dollar out of every \$11 spent for groceries in the U.S. pays for packaging.

Over-packaged Items

An item surrounded by polystyrene beads in a box that is inside another box that is wrapped in plastic may be very secure. However, all that extra packaging material (the cost of which is added to the price you pay for the product) generally ends up in the landfill. Buy items such as fruit, vegetables and dry goods that use little or no packaging at all.

Refillable & Resealable Containers

Use refillable containers. Many food cooperatives allow customers to bring their own containers to refill. Peanut butter, cooking oil, honey, shampoo, flour, nuts and many other products can be purchased in this manner. Invest in resealable containers to store leftovers; avoid using disposable plastic wraps, storage bags, and other such materials.

Bulk Packaging

Buy food and dry goods in bulk sizes. Items with a long shelf life such as laundry detergent, flour and dry pet food can be purchased in large-size containers. Avoid individually wrapped portions of items such as cheese, fruit and juice servings, which are expensive and add to the waste stream.

Concentrates and Less Processed Foods

Purchase concentrates and add the liquid yourself. Transfer to a small container(s) that can be used over and over. Eat lower on the food chain by

using less highly processed foods. Foods in their natural or raw form have less packaging.

Support Reduction

Buy Recycled Materials

No material is truly recycled until it is brought back into productive use in manufacturing and production. Consumer preference for products made from recycled materials, can help close the recycling loop by increasing the demand for collected recyclables. Look for a recycling symbol.

Buy Goods That Can Be Recycled

Buy products in containers that can be recycled. If a product such as cooking oil or peanut butter is sold in a recyclable container such as glass and a similar container in a non-recyclable material, select the one that is most recyclable.

When you purchase items from the store, evaluate each one as to cost, convenience and environmental impact. In other words, how many pieces of material will have to be disposed of in the local landfill?

Use Appropriate Technologies

Use appropriate technologies, whenever possible, such as solar power to dry clothes and heat water or human power to open cans or brush teeth. Recycle and cut back on items that use up nonrenewable resources.

Reduce Toxic Chemical Use

In minimizing the amount of toxic chemicals in the home, substitute less toxic commercial products or make your own less toxic cleaning materials. Contact your Extension office for information. Substitute manual pump spray containers rather than using aerosols. They are less expensive and the bottles can be refilled and used over and over. Home remedies can be prepared that will save money and reduce the need for costly disposal of household hazardous waste.

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- Keep your oven clean by sprinkling it with dry baking soda and then scrubbing with a damp cloth after five minutes.
- Rather than use ammonia-based window cleaners, mix 2 tablespoons of vinegar with 1 quart of warm water and rub with newspaper.
- Unclog drains with a metal snake or plunger rather than using toxic drain openers.
- Use cedar instead of mothballs.
- Use latex or water based paints. Donate leftovers to theater groups or shelters.
- Use dry oxygen bleach or borax instead of chlorine bleach.
- Instead of chemical furniture and floor polishes, dissolve 2 teaspoons of lemon oil in 1 pint of mineral oil. Then apply and buff.
- Give outgrown clothing to friends or a charity.
- Buy beverages in returnable containers.
- Try repair before you consider replacing lawn mowers, tools, vacuum cleaners and TVs.
- Donate broken appliances to charity or a local vocational school, which can use them for art class or for students to practice repairing.
- Offer furniture and household items no longer needed to people in need, friends or charity.
- Sheets of paper that have been used on only one side can be used for note-taking or rough drafts.
- Old, outdated furniture can be reupholstered or slip covered. Have padding added to the furniture to give it a new look. Often the frame can be modified slightly to change the way it looks.

Support Reuse

The idea of being wasteful makes many people uncomfortable. Yet most of us continue to waste because we can't think of anything better to do with last year's phonebook, draperies that are too short or a closet door that was scratched by a favorite pet. We are conditioned to think of things that are old, empty, worn, broken, ugly or marred, as useless so we throw them away without much thought to the consequences.

Start the process of reusing with the assumption that the used materials that flow through our lives can be a resource rather than refuse. Once you have your mind set that you can use trash for positive uses, you can begin to brainstorm and generate ideas. Reusing saves money, conserves resources and satisfies the human urge to make things.

Strategies in Reusing

- Reuse containers at home or for school projects.
- Reuse wrapping paper, plastic bags, boxes and lumber.
- Old pieces of furniture can be repaired or finished with special finishes such as splattering, sponging or rag painting, which takes very little time and skill.
- Old towels and sheets can be cut in small pieces and used for dust cloths.
- Plastic bags and wraps can be used for storing items. They can also be used for packing items for mailing.
- Books and magazines can be donated to schools, public libraries or nursing homes.
- Newspapers can be donated to pet stores.
- Packing materials such as polystyrene, plastic quilting and similar packing materials can be saved and reused for the same purpose.
- Carry a reusable tote bag or take bags to the store when you go shopping. There are attractive nylon mesh bags available that can be stored easily in the glove compartment of your car. Try using durable canvas bags, which take very little space to tuck away when not in use.

- If you buy prepared, microwaveable dinners, save the plates for use at outside parties or for children.
- Reuse containers. Many containers can be used in school projects. Ask your school what sizes and types they would like you to save.
- Old tires can be used in the garden and in the play yard.
- Save items that are used in schools, day care centers, by scouts and senior citizens. Examples of the materials include:

aluminum containers	coat hangers
beads	coffee cans
beans	gift wrap
bottles	magazines
boxes	mirrors
brushes	oatmeal boxes
buttons	paper bags
burlap	foil pie pans
calendars	plastic bags
candles	rug samples
carpet scraps	seeds
Christmas cards	shopping bags
cloth scraps	toilet paper rolls
wallpaper samples	yogurt containers

What Can I Recycle?

Paper. Many communities have been recycling paper for years so there are established markets. Paper constitutes about 40 percent of the volume of residential waste and is one of the most important items for a community to recycle in order to cut down on disposal costs and save landfill space. Although most waste paper goes to paper mills, other industries use it for cereal boxes, insulation materials, cushioning materials for packing and shipping, and building materials such as fiberboard. The main drawbacks are the fluctuation of market prices and the sludge that must be disposed of after the ink is removed. An increasing number of states are requiring their

government offices to purchase recycled paper. In a Gallup Poll, eight out of 10 consumers would like the products they buy to be packaged in recycled paperboard. Types of paper that can be recycled to save landfill space include:

Newspaper. Stack newspaper in manageable bundles and tie both ways with twine; or stack inside grocery bags. Do not include junk mail, telephone books or magazines. Keep the paper clean and dry.

Corrugated cardboard. Consists of two layers of heavy cardboard with a ribbed section between them. It is commonly used for heavy-duty cartons. Boxes can be flattened and bundled.

High-grade paper. High-grade paper or ledger, include typing, notebook, ditto, photocopy and writing paper. White paper must be separated from colored paper and boxed or bagged.

Paper with residues; carbon papers; cellophane; self-stick adhesive; wax, plastic or foil coatings *cannot be recycled*. Slick paper magazines cannot be recycled in most cases.

Aluminum. More than 90 percent of all the beer and soft drink cans are made of aluminum. Aluminum cans are molded without side seams and are nonmagnetic. To recycle aluminum cans, rinse and box or bag. Crushing is not necessary, but saves space. Aluminum foil, pie pans, TV dinner trays and lawn furniture are also recyclable. Beverage containers with only aluminum tops or bottoms cannot be mixed with pure aluminum. Twenty aluminum cans can be made from recycled aluminum using the same energy it takes to produce one can from virgin ore. This represents a 95 percent savings of energy.

Steel (tin) cans. Steel cans, commonly called tin cans are typically food cans. Food cans make up 37.3 percent of total can production. These are generally steel or tin-coated steel and can be recycled. They are magnetic and have side

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seams. To recycle, rinse, remove the label, remove both ends and flatten. The market for tin cans fluctuates. Recycled tin is especially sought after in the U.S. since raw tin can only be obtained from foreign countries.

Glass. Glass containers make up 20-40 percent of municipal waste glass and are the easiest for recycling centers to collect and handle. All kinds of glass containers, heavy or light, whole or broken, can be recycled and reused an indefinite number of times. Glass is 100 percent recyclable—there is no waste or bi-products. Clear, green and brown glass is collected in many recycling programs. Broken glass is accepted as long as it is color separated. Paper labels can be left on the glass, but aluminum neck rings and caps can be a problem depending on the recycling equipment being used. Cullet, or crushed glass, can be used to make new bottles, jars and other containers. Some other uses for cullet are glassphalt, a road paving material, building panels and terrazzo.

Recycling centers will not accept light bulbs, ceramic glass, dishes or plate glass because these items consist of different materials than bottles and jars.

Plastic. Two plastics dominate the market: PET (polyethylene terephthalate) is the primary plastic for soda bottles and HDPE (high density polyethylene) is the usual component of milk jugs. Many containers made of plastic are actually made of multiple layers of different plastics, each one contributing a specific quality (such as flexibility or transparency) to the final product. These are extremely difficult to recycle.

A coding system significantly aids efforts to recycle plastics. By weight, plastics constitute about 8 percent of the waste system; by volume about 30 percent. The plastic recycling industry is growing with a variety of products being manufactured, including lumber, machine parts,

household items such as pans, flower pots, fiberfill and carpet.

Motor oil. Motor oil never wears out, it only gets dirty. Drain car, motorcycle or lawn mower oil into a container with a sealable lid. Some garages, service stations and some large retailers with auto shops accept used oil. Once impurities are removed, used oil can be marketed as re-refined oil or industrial fuel oil.

Organic waste. Grass clippings, leaves and small branches can be recycled or managed at home. Using these valuable materials can save the homeowners energy and serve as a plus in a yard maintenance program. Old Christmas trees can be recycled, chipped into mulch and used on the grounds. They can also be used in arroyos and along streams and rivers as protective barriers against the damaging effect of wind and water erosion. Contact your county extension office for more publications on managing yard waste.

Scrap metals. Aluminum lawn furniture, windows and door frames, as well as brass, lead, steel, cast iron, nickel and fixtures and machinery parts can all be recycled. Broken appliances, copper tubing and old car batteries also can be recycled.

This material was adapted from publications produced by New Mexico State University. NMSU Cooperative Extension publications can be found on the Web at <http://www.cahe.nmsu.edu/pubs/>.

*This resource is one in a series on **Maintaining the Home** which include:*

Interior Maintenance

Preventive Home Maintenance Checkup
Make a Basic Toolkit for Simple Home Repairs
Selection and Use of Home Cleaning Products
Discovering the Secrets of Successful Storage

Heating

Furnace Care
Fireplace and Chimney Care

Cooling

Evaporative Cooler
Air Conditioner
Ceiling Fans

Plumbing

Fixing Plugged Sink Drains
How to Unclog a Toilet
Repairing Dripping Faucets

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How to Set or Reset a Circuit Breaker
How to Replace a Fuse

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How to Buy an Energy Efficient Home Appliance
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Dryer Care and Dryer Cleaning
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Range and Oven Care and Range Cleaning
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Carpet Care and Cleaning
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