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AT HOME

BE IT EVER SO HUMBLE

Your home: It could be a three-bedroom bungalow, a studio apartment, a condominium, a duplex, a mansion, a trailer, even a yurt. It's the place where the public world stops and your private world begins.

Or is it? As computers and satellites shrink the globe, your private world expands. The line between what's happening to you and what's happening "out there" is erased. And though it hardly seems possible, it's true: What you do at home has regional, national and global consequences.

Call it the "cumulative effect." The actions of any one person alone may not seem important, but when a large number of individuals do the same thing, the impact can be astounding. Say half the people in Merrill don't recycle. Soon, everyone in Lincoln County must deal with the problem of siting and constructing a new landfill. Suppose no one in Milwaukee weatherstrips their windows. More energy is consumed and more emissions are released into the atmosphere, where there are no state lines or country borders.

Now what if the people in Merrill recycled cans and bottles and composted leaves and grass? What if all of Milwaukee's windows were weatherstripped? What if you and your neighbors did the same? Slowly, the world begins spinning a different way. There's less waste, less pollution. Resources are conserved for generations to come.

All because of something you and a lot of other people did *at home.*

It's easy to make your home a place where public and private worlds meld instead of clash. You'll meet people who've done just that, and discover "how-to" tips as you walk from room to room in the following pages.

Some of these ideas may work in your world. Why not give them a try?

THE KITCHEN

It's the heart of a household —
and the place where you have the most control over waste.

DESIGN FOR LIVING

The stock market may be a risk, and Las Vegas is always a gamble, but there's one thing you can bet on: Recycling is here to stay. Full landfills, scarce resources and limited energy supplies will see to that.

By weaving recycling into their domestic routine rather than viewing it as an exceptional chore, Bob and Rita Acker of Waunakee brought the future into their home. It came in through a cat door.

"We were building a new house, and we knew we'd be in it for quite a while," said Bob. "We wanted our home to have features that would make it work for us. Recycling was something we'd been doing all along, and we took that into account in the design."

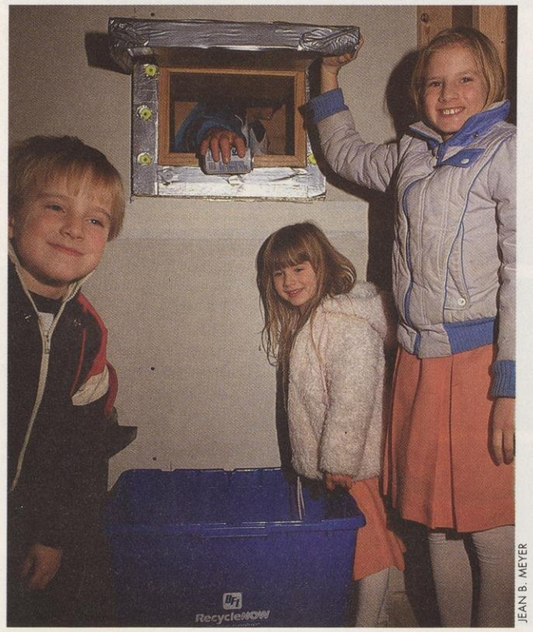
Their goal: To make recycling simple and invisible. After researching magazines and talking to other homeowners, the Ackers decided on a chute in the kitchen leading to a bin in the garage. "We thought about installing a cabinet for recyclables in the kitchen island," said Bob. "But when it was full, we knew we'd be bringing the cans and bottles into the garage eventually anyway. It seemed best to put them there right from the start."

Builders working on the Acker home found the concept of a recycling chute amusing. "They were new to the idea," Bob recalled. "The drywallers wrote 'kitty door' across the spot where the drywall would be cut away for the opening."

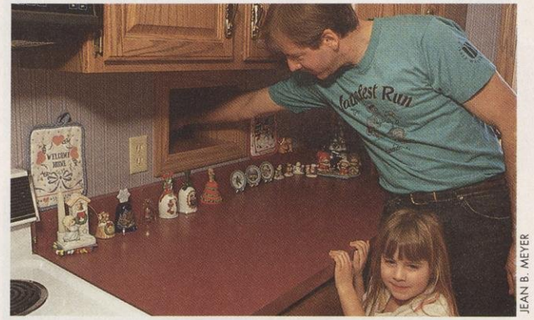
Construction jokes aside, the Ackers and their three children think the chute is the cat's meow. The wood-trimmed, hinged opening, barely noticeable in the short wall between the countertop and upper cabinets, is conveniently located near the sink so cans and bottles can be rinsed before being recycled. Bob insulated the back of the chute door to keep cold air out of the kitchen.

The recyclables land in a large bin on the other side of the wall, set inside a closet in the garage. In the Acker's community, recyclables are picked up in one bin; there's no need to separate plastic from glass or aluminum.

The Ackers are glad they took the time to plan for recycling in their new home. "The chute's really handy, no bottles and cans cluttering up the kitchen," Rita said. "I think all houses ought to have them."



JEAN B. MEYER



JEAN B. MEYER

(above) The wood-trimmed recycling chute blends in with kitchen decor. It's located near the sink so cans and bottles can be rinsed before being recycled.

(left) Bob Acker launches a can from the kitchen recycling chute while his children Jessica, Melissa and Jared intercept the pass in the garage. The chute's back side is insulated to stop cold drafts.

DON'T WORRY, BE SCRAPPY!

Nearly seven percent of what Americans throw out is food. A garbage disposal uses energy, increases the amount of waste in water flowing to a water treatment utility or septic system, and sends valuable soil nutrients down the drain. Shut it off and try collecting and composting food scraps instead. Here's how:

1. First, contact your local community to see if food composting is allowed in your area.

2. Discard meat scraps, bones, cooking oil, fats and dairy products with your other trash; they don't compost well and may attract animals to your heap.

3. Save all vegetable scraps, fruit peels, egg shells, moldy bread, coffee grounds, etc. in a container with a tight-fitting lid. The smaller you chop up the pieces, the faster they will decompose. Covering a day's worth of scraps with a handful of potting soil helps control odors.

Collect veggie scraps for composting in a handy countertop bin.

4. Once a week, take your container and bury the kitchen booty about six to eight inches deep in the center of a hot compost heap. Cover the heap with a little soil, leaves or grass. Rinse out the container and you're ready to start again.

5. Don't have a compost heap? See page 12! Don't have room for a compost heap? Let worms do the work for you! See page 14!

ALL PHOTOS THIS PAGE BY TRACEY TEODECKI (EXCEPT NUMBER 2–BY ROBERT QUEEN)

STORAGE SHOWCASE

Stashing bulging bags of cans and bottles in the basement until recycling day works fine for some people. Others prefer more convenient or permanent systems for separating and storing recyclables.

1. A built-in, roll-out cabinet holds bottles and cans; the roll-away drawer keeps old newspapers out of sight.

2. A broom closet does double duty with the addition of recycling bins.

3. The simple and inexpensive everything-under-the-kitchen-sink method.

4. This "recycling alcove" complete with can crusher fits neatly into the kitchen of a small apartment.

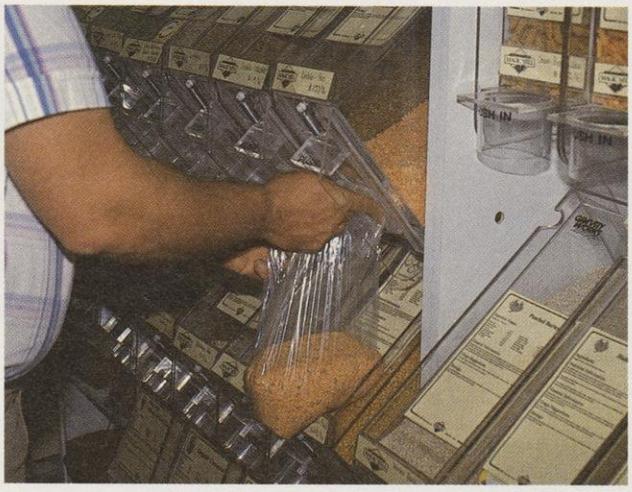
CONSCIENTIOUS CONSUMING

Being a responsible shopper in a society that says "buy, buy, buy" requires common sense and a firm grip on the checkbook.

PRECYCLING

You started with tricycling and moved on to bicycling. Are you ready to make the leap from recycling to *pre*cycling? Precycling means thinking about packaging before you buy. It's asking yourself, "What's going to happen to this peanut-butter jar or cereal box or meat tray when I'm done with it?" If the answer is that it can't be reused in your home, can't be recycled in your community, or can't be recycled period, reconsider the purchase. Remember, you not only pay for the packaging in the store, you also pay to dispose of it later. Some precycling tips:

- Convenience packaging is a major inconvenience at the landfill. Avoid single-serving, throwaway packs — particularly those that are difficult to recycle. Make your own "singles" by divvying up puddings, juices, snacks, soups and casseroles into small, reusable containers.
- Many microwave-ready products come wrapped in so much packaging that it's hard to find the food! You'll save money by preparing your own recipes and freezing the food in reusable, microwave-safe containers.
- Use refillable containers whenever possible.
- Skip disposable items like razors, cigarette lighters, one-roll cameras and paper plates. Choose long-lasting, reusable products instead.
- Buy food staples and cleaning supplies in bulk to cut down on packaging waste. If you're single or have a small family, buy in bulk with friends. Store bulk products in bins, bottles or other containers with tight-fitting lids.
- Buy juices, laundry detergents and other products as concentrates – there's less packaging.
- Use a cloth tote bag to carry goods and you won't be stuck with a closet full of plastic and paper bags.
- Pack lunch boxes and thermoses for meals away from home.



TRACEY TEODECKI

When you buy products in bulk, you won't have to pay for or throw away a lot of unnecessary packaging.

WRITE NOW

If the products you buy — from food, small appliances and compact discs to hammers, barrettes and personal care items — are overpackaged, packed in materials that can't be recycled easily, or hard to recycle in and of themselves, write to the manufacturers and register a complaint.

Demand simple, recyclable packaging and products. Be specific about what you don't like and why; offer solutions, too. For example: "Your XYZ Screwdriver attached to a cardboard card with a metal clip and encased in a plastic blister pack creates waste and drives me crazy — the plastic is really hard to pull off and it's not recyclable in my community! Forget the plastic...better yet, how about using a simple display box with loose screwdrivers instead?"

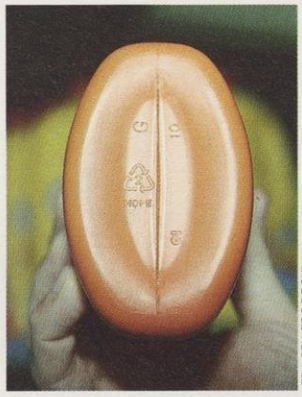
Any company concerned about customer satisfaction will listen if enough people speak up. The same goes for your local, state and federal government officials. They need to know about your problems to make changes through legislation. Let them know what you're thinking!

KNOW YOUR PLASTICS

In 1988, the Society of the Plastics Industry, Inc. created seven codes to help consumers identify the resins used in plastic packaging. Although the codes molded or imprinted on or near the bottom of containers make *separating* most plastics a breeze, the symbols alone do not guarantee that your community accepts *all* plastics for recycling. Why?

Two reasons: Technology and markets.

Each plastic resin serves a specific purpose. Take high-density polyethylene, or HDPE. A thick, gelatinous HDPE resin can be blow-molded into milk jugs and detergent bottles; thinner, runnier HDPE is injection-molded into margarine tubs and yogurt cups.



TRACEY TEODECKI

It's natural to assume that the tubs, jugs and cups could be recycled together, since they're made of the same resin. But HDPE is altered by the method used to heat and shape the container. When blow- and injection-molded HPDE containers are collected together and melted down to be recycled, the result is an inferior "hybrid resin" that lacks the characteristics of thick or thin HDPE. Consequently, most recycling programs only accept blow-molded HDPE — milk jugs, laundry and dish soap bottles. That's because there's a well-established market for recycled blow-molded HDPE resin. It can be made into bottles, drainage pipes, milk crates, recycling bins and other products.

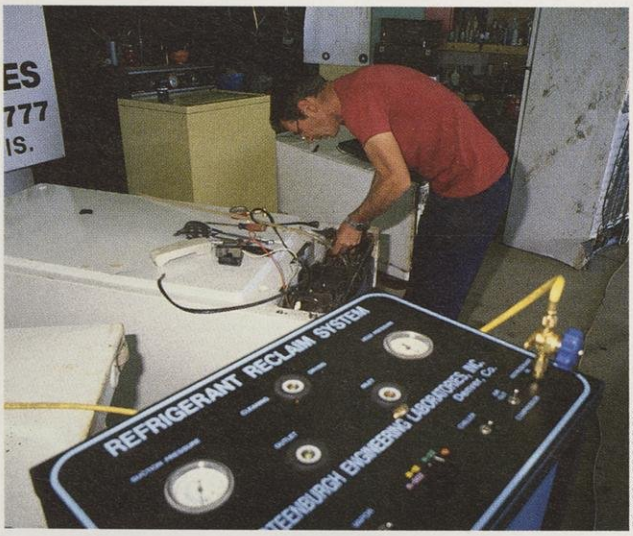
Inventing new manufacturing processes to create products from all the different kinds of plastic resin that can be recycled takes time. Markets for those new products don't spring up overnight, either.

Check with your local government or recycling center to find out what kinds of plastics they collect — many will only accept milk jugs, soda bottles and some colored HDPE containers, such as bleach and detergent bottles. Avoid buying products in packaging your local recycling program doesn't handle — it will just end up in the landfill.

1. **PET** polyethylene terephthalate
2. **HDPE** high-density polyethylene
3. **PVC** polyvinyl chloride
4. **LDPE** low-density polyethylene
5. **PP** polypropylene
6. **PS** polystyrene
7. **OTHER** all other resins, and multi-layered resins

TRACEY TEODECKI

Baled PET and HDPE bottles await recycling. As manufacturing processes develop, markets for other plastic resins may grow.



TRACEY TEODECKI

Disassembling refrigerators. The metals, motors and coolants in large appliances can be recycled.

ALL THE MODERN CONVENIENCES

Most people would agree that running a household without appliances is like running a marathon without feet. Hard to believe that just a generation ago appliances were luxuries, not necessities. While domestic drudgery may be behind us, bigger problems lie ahead if our reliance on the appliance continues unabated.

It takes energy — lots of it — to operate frost-free refrigerators, self-cleaning ovens, washers, dryers, food processors, mixers, coffee pots, waterbed heaters, waffle irons, dehumidifiers, humidifiers, circular saws, et cetera, et cetera, et cetera. Increased energy use translates to higher gas and electric bills and more pollution from burning fossil fuels.

If an appliance can't be repaired when it's broken, there's disposal to think about. The metal in refrigerators, stoves and other major appliances can be recycled; coolants in fridges and freezers can be recovered as well. But smaller items long since surpassed by new, improved models become garage sale rejects doomed to end their useful lives in a landfill.

- Before you buy any new or used appliance, ask yourself a question: "Do I really need this?" Maybe you could rent, lease or borrow it instead. If the answer is yes, ask yourself, "Do I really need one this big?"
- Choose durable, energy-efficient, repairable appliances. Stickers on refrigerators, dishwashers and ovens show energy usage. Local utilities can give you more details on efficiency. Check consumer magazines for product evaluations.
- Follow maintenance schedules! Regular care over time protects your initial investment and keeps the appliance operating safely. You'll need fewer repairs.
- Look for "DFD" appliances: designed-for-disassembly. Manufactured with recycled or easy-to-recycle materials, DFD products are assembled with large modules rather than many small parts. When a DFD toaster finally wears out, its components can be pulled apart and recycled.
- Refrigerators, washers, stoves and other major appliances have been banned from state landfills and incinerators. Contact local appliance dealers, your department of public works or community recycling center to find out how you can recycle these "white goods."

WHERE'S THE ENERGY GOING?

MONTHLY OPERATING COSTS

Electric water heater *(standard efficiency)*	$38.00
Electric water heater *(high efficiency)*	$31.00
Gas water heater *(standard efficiency)*	$18.50
Gas water heater *(high efficiency)*	$14.00
Dehumidifier	$12.60
Refrigerator	$10.57
Electric clothes dryer	$8.96
Waterbed heater	$8.61
Lighting	$4.90
Freezer	$4.34
Electric range	$4.20
Gas range *(with pilot light)*	$4.20
Gas clothes dryer *(with pilot light)*	$3.76
Television *(color, six hours per day)*	$2.52
Gas clothes dryer *(without pilot light)*	$2.44
Gas range *(without pilot light)*	$2.40
Dishwasher *(excluding hot water costs)*	$2.38
Clothes washer *(excluding hot water costs)*	$1.12
Microwave oven *(20 minutes per day)*	$0.90
Stereo *(two hours per day)*	$0.46

(based on an electric rate of $.07/kilowatt hour and a gas rate of $.60/therm.)
Source: Madison Gas & Electric

LIVING LIGHTLY

How to make your living spaces into energy-efficient places.

It is David Lagerman's personal mission to help people understand the concept of sustainability. "Humans build," says David, a research librarian at the Milwaukee Journal. "It's what we do. We're technological beings. But we need to make that tendency work for us, not against us."

Lagerman has spent the past six years working on the home he calls Photon House, named after the particles of electromagnetic energy emanating from the sun. His residence is part of High Wind Farm, a complex of energy-efficient homes located in Sheboygan County's Kettle Moraine.

The modest, well-insulated home still under construction reflects Lagerman's basic belief: That anyone with a little time and skill can do a lot to conserve energy at home.

Although the home's windows are double-glazed and have a special coating to keep in heat, Lagerman also uses window quilts and window covers to help hold the sun's warmth inside at night.

"I made the covers from two-inch-thick beadboard (a kind of rigid insulation), scrap wood strips, hinges and white glue," Lagerman noted. How? He cut a panel of insulation to fit the window frame, glued a wood strip on top of the panel and attached part of the hinge to the strip.

ROBERT QUEEN

David Lagerman and his well-wrapped fridge. The insulation blanket helps save energy by keeping the appliance cool.

ROBERT QUEEN

Compact fluorescents use 50 percent less energy than incandescent bulbs. New fluorescent bulbs have special coatings on the inside of the glass to soften and warm the light.

Then, he screwed the other part of the hinge into the window frame. Wood stops just inside the rim of the window frame make a tight seal when the cover is down. The cover swings up out of the way, held by a clasp on the ceiling, until it's needed.

"Switching over to compact fluorescent lighting is another easy way to cut back on energy consumption," Lagerman says. Fluorescents illuminate Photon House, even though they initially cost more than incandescent bulbs. "They're so efficient and last so much longer you'll save money and energy in the long run," he notes. "Look at them as an investment in the environment."

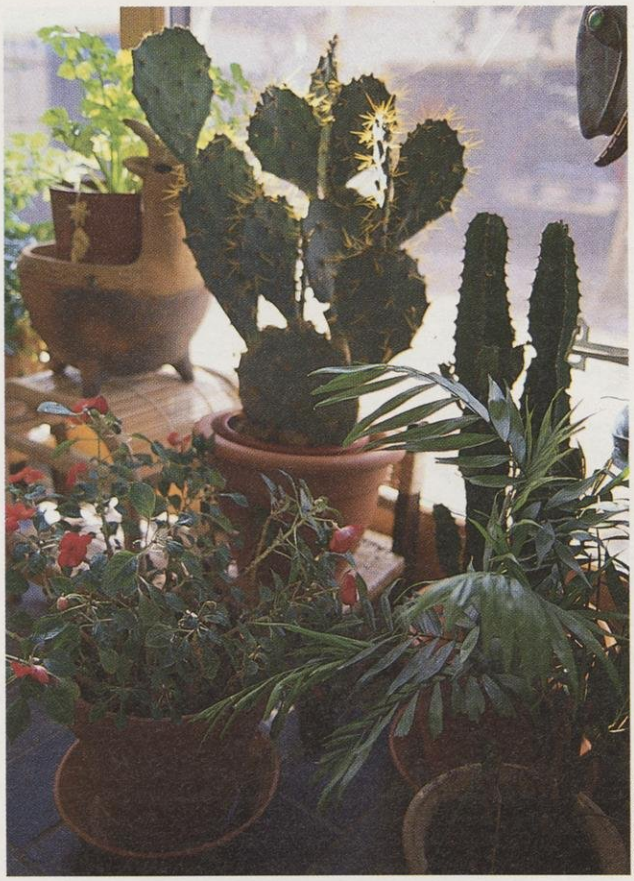
Lagerman suggests replacing incandescent bulbs with fluorescents as they burn out, or purchasing one fluorescent light every month or two until you've got the whole house converted. "Check with your electric utility — they may have a special program to help you get started on compact fluorescents," he says.

Like Lagerman, you can wrap your hot water heater in a blanket of insulation to prevent heat loss. Hot water heaters account for about 20 percent of the energy used in a home. "Try wrapping your refrigerator, too," he suggests. "It will stay cooler, so it won't use as much energy." (Keep the insulation away from pilot lights, coils and motors.) Not one to let a thermal unit stray, Lagerman installed a fan and duct to circulate the heat given off by the refrigerator's coils.

"It all adds up," says the man who built an air conditioner that uses well water, not chlorofluorocarbons, as a coolant. "It's the small things, the attitudes, the habits that really make a difference.

"I'm not a believer in 'a breakthrough a day keeps the crisis at bay.' People need to focus on what they can do right now to lessen their impact on the environment."

Seminars on solar power and energy efficiency are offered periodically at High Wind Farm. The address: Route 2, Plymouth, WI 53073 or call (414) 528-7212.



ROBERT QUEEN

Houseplants: A breath of fresh indoor air?

GREEN FILTERS

According to research by the National Aeronautics and Space Administration, certain types of houseplants can reduce levels of formaldehyde, benzene and trichloroethylene — three common household air pollutants.

Fiberboard, insulation, pressed-wood products and plastics used in construction materials and furniture emit traces of volatile organic compounds (VOCs) into the air. Cleaning fluids, paint strippers, air fresheners, shoe polish and other products also release VOCs indoors.

Enter aloe vera, spider plant, chrysanthemum, English ivy, philodendrons, snake plant and the banana tree. Researchers suspect that microbes living on the roots of these plants absorb VOCs from the air.

How many houseplants would it take to purify the air of a four-bedroom home or a one-bedroom apartment? The numbers are under dispute, ranging from one plant for every 100 square feet (a 10-by-10 room) to a hundred or more plants per home. The debate undoubtedly will continue. While you're waiting for the definitive number, go ahead and add a few green plants to your indoor landscape. They'll help clear the air...and you'll have home-grown customers for your homemade compost.

ROOMS FOR IMPROVEMENT

Living rooms, family rooms, bedrooms...when the areas where you rest, relax and play are comfortable and efficient, you'll enjoy your leisure time more and save money as well.

• You've heard it before, but it bears repeating: Turn down the thermostat and put on a sweater! Use throw quilts and afghans for warmth when reading or watching television.

• With a programmable thermostat, you can adjust the temperature according to your schedule. Set it to lower the heat when you're not at home and when you're sleeping. A down comforter will keep you just as warm as an electric blanket.

• Do you really need an air conditioner in Wisconsin? There may be a few scorching days each summer, but the average summer temperature is only 70 degrees! Install a "whole-house" fan in the attic, or use window shades, small fans, loose clothing and cool drinks to temper the heat indoors; outdoors, plant deciduous shade trees to block the sun in summer but let it through in winter.

• Share magazines and books with friends, or donate them to schools or libraries.

• Wean children from battery-operated toys (if you can!), and cut back on your use of batteries in general. Unlike car batteries, which have been banned from landfills and can be recycled, the small batteries used to power flashlights and boom boxes end up in the trash — where they corrode or are incinerated, releasing small amounts of toxic heavy metals such as lead, cadmium and mercury.

If you must use batteries, you'll have to make a choice. The new low-mercury alkaline batteries contain less toxic metal than nickel-cadmium rechargeable batteries, but they don't last as long, so you'll end up using (and disposing of) more of them. Rechargeables? You'll use fewer batteries overall, but the ones you'll eventually have to toss when they're worn out after several recharges still contain toxic metals.

CLEANING UP

Make your home sparkle without leaving a ring around the planet.

Housecleaning! The very thought of it hangs like a shroud over Saturday mornings (and Tuesday nights, or Thursday afternoons, or whenever you set aside time to tidy up.)

ROBERT QUEEN

The human war against dirt and grime rages on, as it has for centuries — only now, people have a whole arsenal of cleaning supplies from which to choose their weapons.

We rely on products containing hazardous solvents and chemicals to do our dirty work. The amount in a single bottle or can seems insignificant...until it's multiplied by millions of users. To have gleaming floors and spot-free clothes, we're willing to pour pollutants down the drain.

The heavy artillery just isn't necessary, says Mimi LaGrange. She ought to know. Mimi's been toiling on the front lines for 11 years, rousting out other people's dirt with water, soap, vinegar, baking soda, washing soda, borax and elbow grease.

"I quit using aerosol cleaning products a long time ago," says Mimi, who cleans homes in the Madison area. "I didn't want to be breathing a mist of chemicals day after day."

One of Mimi's favorite cleaners is a mild, vegetable-oil based soap that comes as a liquid or gel. The soap dissolves readily in water and can be used to clean all kinds of floors, including wood floors, and woodwork.

"Baking soda makes a good scouring powder," says Mimi. "Or try vinegar mixed with salt and a little water to scrub out stains in a sink or tub."

A combination of borax and soap can be used as a disinfectant, but several of Mimi's clients prefer that she use bleach for disinfecting bathroom fixtures. "I'm very careful with bleach," she says. "I wear gloves, of course. I always open a window when I use bleach to disperse the fumes, even if it's in the middle of winter."

Mimi recommends lemon oil for polishing furniture. "Be sure to get the kind without petroleum distillates," she cautions. "Read the label!"

You'll save money once you begin cleaning safe and smart. A basic cleaning kit — a large box of baking soda, a gallon of vinegar, a box of borax, a box of washing soda and a jar of vegetable-oil based soap — costs under eight dollars and will last for months. There are other ways to cut back on cleaning costs. "Hang on to those old diapers," Mimi advises parents. "They're especially nice for cleaning windows and polishing furniture — nice and soft, no lint. Old newspaper works for cleaning windows, too. You don't need to buy disposable wiping cloths."

Any more tips on how to make a home shine, Mimi? "Sure. Hire a cleaning person!"

ROBERT QUEEN

Mimi LaGrange takes a swipe at stubborn grime with a mild, vegetable-oil based soap.

THE BASIC CLEANING KIT

White vinegar: Dissolves grease and mineral accumulation.
Borax: Disinfects and deodorizes.
Baking soda: Deodorizes and is mildly abrasive.
Washing soda: Cuts grease, removes stains, softens water.
Non-detergent soap: Loosens dirt.

RECIPES

All-purpose cleaner: Mix one gallon hot water with 1/4 cup of white vinegar, or mix one teaspoon borax into one quart of hot water. Add a squeeze of lemon juice or a splash of vinegar to cut grease. Rinse with water.
Scouring powder: Dampen a sponge with baking soda and scrub.
Toilet bowl cleaner: Pour one cup vinegar into the bowl, then toss in a handful of baking soda. The mixture will foam. When the foam subsides, scrub and rinse.
Disinfectant: Mix 1/2 cup borax and 1/4 cup vinegar in two gallons of very hot water. For a stronger disinfectant, add more borax.

For more recipes, contact your County Extension office or read "Safe at Home" in the December 1990 issue of *Wisconsin Natural Resources*.

WHY SAVE WATER?

In Wisconsin, where water is plentiful, it's not so much the water you need to conserve as it is the energy. Pumping, treating and heating water requires electricity or fuel — gas, coal or oil. The more fuel and power we consume, the more pollution we create.

You can cut back on power consumption by installing a solar hot water heater. The upfront costs of a solar system are high, but you'll recoup your investment over time. If you're not ready to follow the sun, try cutting back on water (and energy) use with inexpensive water-saving devices. A good place to start: The bathroom, where 70 percent of all indoor household water is consumed.

• Showers are big water guzzlers, accounting for roughly 32 percent of home water use. You can cut energy use and costs for heating hot water by nearly half simply by installing a low-flow shower head. Most cost less than $20. Standard shower heads release five to seven gallons of water per minute (gpm); low-flows use only one to three gpm and still provide a good, high-pressure spray.

• A family of four flushes away more than 70 gallons of water a day with a standard toilet using five to seven gallons per flush. New low-flush toilets require as little as a gallon and a half of water per flush. Old toilets can be made into water-savers if you decrease the amount of water in the tank. Inexpensive tank dams made especially for this purpose can be purchased at hardware stores.

• Equip all faucets in the bath and kitchen (and wherever else you have them) with aerators. These little marvels screw on to the faucet and slow the water flow, saving hundreds of gallons of water per household every day. Aerators cost about $2 apiece. Cheap!

A FEW MORE TIPS...

• Use toilet paper and tissues made with recycled pulp.

• Buy shampoo, conditioners and soap in bulk to save on packaging. Toothpaste and hand soap packed in elaborate plastic pump containers create waste; stick to tubes and bar soap.

• Put a waterproof clock or timer in the bathroom to time showers!

• Use the basics (vinegar, baking soda, washing soda, borax) or try nontoxic commercial bathroom cleaners to clean sinks, tubs, tile and toilets.

RETURN TO SENDER!

Grass clippings and leaves should go back where they came from!

About 16 to 25 percent of all household waste comes from the yard – grass clippings leaves, brush, weeds, garden debris. Every year, nearly 442,000 tons of yard waste displace a hefty chunk of space in Wisconsin landfills. But not for long. After January 1, 1993, no greenery from the yard and garden can be buried in any Wisconsin landfill. Which means you will have the rare opportunity to witness the eternal cycles of nature right in your own backyard or community.

How? By composting — speeding up the slow natural process governing the decomposition of organic matter.

To compost leaves, grass clippings and food scraps at home, you can make a freestanding compost heap or build a simple bin out of snow fence, stacked cement blocks or wood to contain your pile. The pile should be no smaller than 4 x 4 x 4 feet and no larger than 5 x 5 x 5 feet.

1. Start with 8 to 10 inches of bulky organic matter such as leaves, chipped brush, garden debris, sawdust and fruit and vegetable peelings. Lay coarser material on the bottom to allow air to circulate.

2. Add water to the pile until it's as moist as a wrung-out sponge.

3. Get the heap cooking by adding a one-inch layer of a nitrogen source, such as green grass clippings, manure or lake weeds. Or sprinkle one cup of 10-10-10 fertilizer or bloodmeal per 25 square feet of surface area on top of the pile. Heat is created as materials decompose.

4. Add a one-inch layer of garden soil to supply the pile with microorganisms.

5. Repeat the layers until the heap is about four feet high or the bin is nearly full. A final layer of straw helps shed heavy, soaking rains.

When the pile has settled after three or four weeks, fork the materials into a new pile, turning the outside of the old heap into the center of the new pile. Add a little water if the heap seems dry. Turning the pile every three to four weeks will hasten decomposition.

In two to three months, in place of that bulky pile of yard cast-offs, you'll have a small mound of dark brown, crumbly, earthy-smelling compost. Dig it into your garden and flower beds. Use it as a mulch for trees and shrubs, or spread it on your lawn. Mix sterilized compost with potting soil for healthy houseplants. If you have more than you can use, share it!

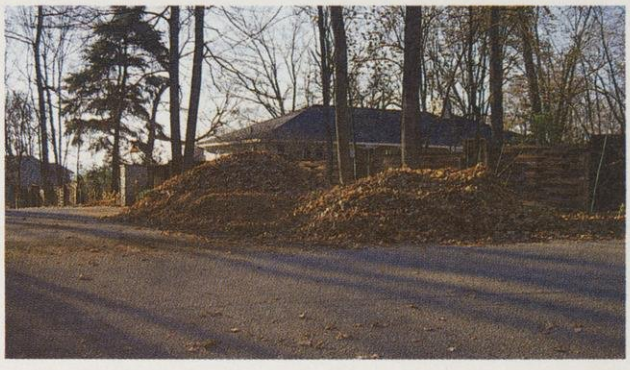
From bin...to compost.

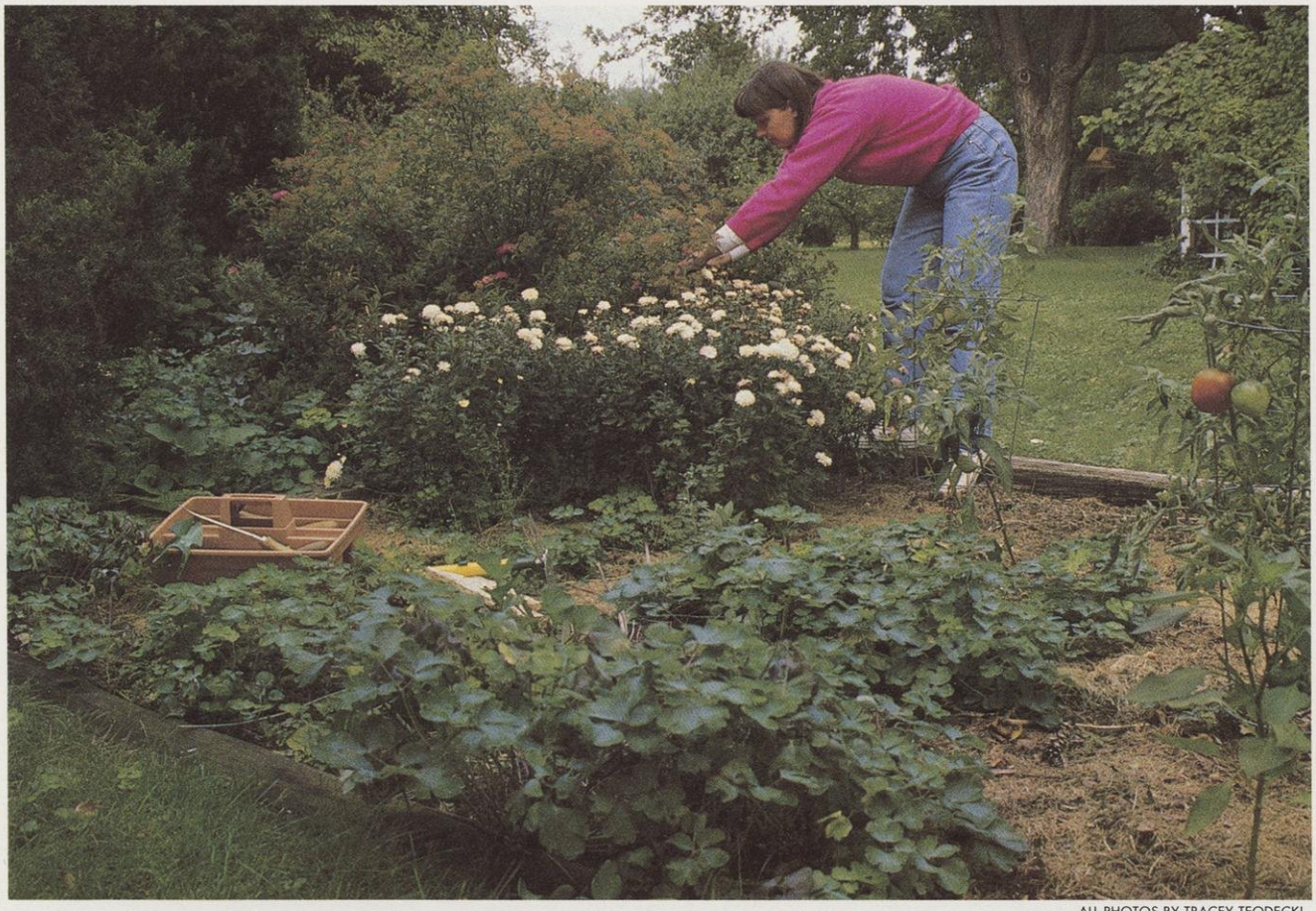
For information on composting or yard waste regulations, call (608) 267-7565.

COMMUNITY COMPOSTING

If it hasn't already, your community likely will be embarking on a large-scale composting and brush-chipping program to meet the 1993 landfill ban.

Your cooperation will make the program a success. You may be asked to place leaves in special bags for curbside pickup. Or you might be directed to bring your grass clippings and brush to drop-off sites. The ultimate goal of any composting program is to save you money by saving costly space in your landfill — so take a little time now to find out how your community is handling yard materials and what you can do to help.





ALL PHOTOS BY TRACEY TEODECKI

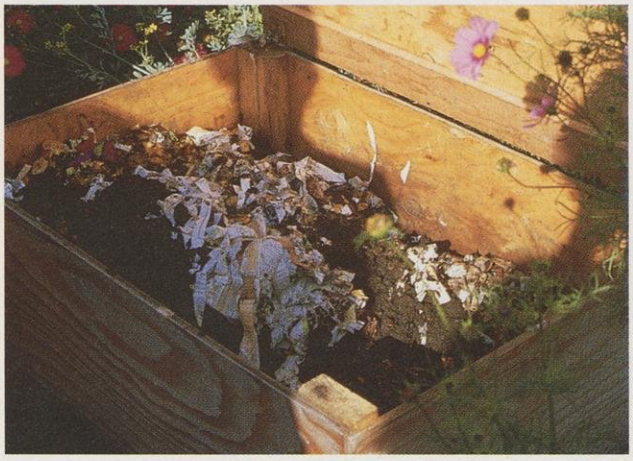
Mulch shrubs, trees and flower beds with leaves, grass clippings and chipped bark to control weeds.

NIPPING IT IN THE BUD

Composting isn't the only way to keep leaves and grass out of a landfill. If you don't have the space or the inclination to build a compost pile, consider the following:

- Leave grass clippings on the lawn. They'll decompose rapidly and return nitrogen to the soil, cutting down on fertilizer costs.
- Rake leaves into a wide ring about two inches deep around the bases of trees and shrubs so you won't have to mow grass close to the trunks or roots.
- Build raised planting beds with rocks, bricks or wood — they only have to be a few inches high. Toss shredded or chopped leaves into the beds.
- Use shredded leaves and grass clippings as garden mulch. (Don't use grass clippings as mulch if the lawn has recently been treated with herbicides or insecticides.)
- If you only have a few trees, don't bother raking leaves; simply mow over leaves where they fall and let the shredded matter settle into the lawn.
- Plant a low-maintenance prairie lawn. Check city ordinances; you may be required to submit a landscape plan.
- Plant low-grow, no-mow ground covers in shady spots or heavy-traffic areas.
- Chip brush for mulch, or save woody brush for the fireplace or wood stove.
- If you have room, make brush piles for wildlife habitat.
- Start a neighborhood yard waste network, so gardeners can get grass clippings and leaves from neighbors who don't want to compost.

WRIGGLE WASTE AWAY



TRACEY TEODECKI

Veggie scraps *du jour* head the menu in this wooden "worm diner."

Many apartment dwellers and homeowners with small yards would like to compost food scraps but have no room for a heap. With some careful planning, they may find space for a bin — a worm bin, that is.

The bin is a covered wooden or plastic box about two feet wide, three feet long and a foot or so deep. The worms are redworms (*Lumbricus rubellus*), the creatures occasionally found squirming at the end of a hook when all the nightcrawlers have retired for the day.

You fill the bin with damp bedding — newspaper or corrugated cardboard torn into strips, fallen leaves, or peat moss. Add about a pound of red wrigglers (bait shops or worm farmers are good sources). To feed the gang, bury your vegetable scraps, fruit peels and cores, coffee grounds, tea bags, bread crusts (anything but meat and fish scraps, oils, cheeses or other dairy products) under the bedding. Don't forget to close the lid!

The worms munch away, turning the bedding and food scraps into castings, or worm manure, over a period of six to eight months. Rich in nutrients and humus, castings are perfect for enriching garden soil and fertilizing houseplants.

Before beginning on a worm bin project, check with your local community to see if food scrap composting is allowed in your area.

Sounds easy, doesn't it? But George Sroda, the "Worm Czar of the World" holding court in Amherst Junction, Wis., revealed that the worm turns on more than the occasional banana peel.

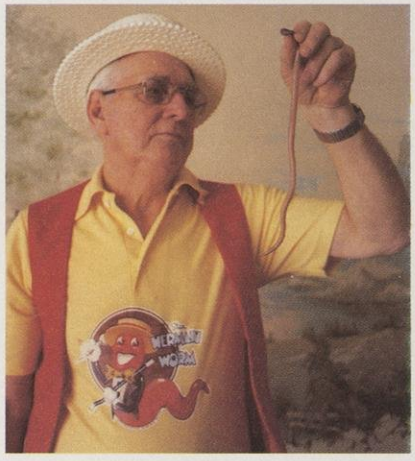
"Worms are living things, you see," says the 80-year-old Sroda, who's devoted most of his life to researching and raising worms. "They require care and attention. You can't just drop 'em in there and forget 'em! That's irresponsible!"

It's important to keep the bin in a place where it won't freeze. "Worms prefer temperatures around 50 degrees — not too hot and not too cold," Sroda says. "They like it dark, so keep the bin under the sink, or in a closet. If you don't feed them enough, they'll shrink and die. Be sure you've got enough scraps to go around."

The bin mentioned above can hold the food scraps of up to four people. It won't produce foul odors if you provide warmth, bury enough food below the surface of the bedding, add fresh bedding when necessary and remove castings regularly.

Are worm bins the answer to saving landfill space? "I don't know if I'd go that far," says the Worm Czar. "But I do know this: You'll never lack fish bait."

George Sroda will answer your questions about worms if you send a self-addressed, stamped envelope to The Worm Czar, Box 97, Amherst Junction, WI 54407. For more information on how to build and use a worm bin, read Mary Appelhof's *Worms Eat My Garbage* or Robert Kourik's "Garbage to Compost" in the Nov/Dec issue of *Garbage* magazine.



George Sroda and slippery friend.

A FEW MORE TIPS...

• Next time you're in the market for a lawn mower, consider purchasing a mulching mower or a push mower. Mulchers shred clippings to hasten decomposition. Nonpolluting push mowers require no electricity or fuel (except a good breakfast for the pusher); they're great for small lawns. Quiet, too!

• Make room for wildlife in your yard! Plant flowers, trees and shrubs to attract butterflies and birds; hang bird feeders in winter and keep them filled.

• A yard with a diverse mixture of plants will attract a range of insects and be better able to fight off infestations without pesticides.

• If weeds or pests are a problem, try organic remedies first before resorting to herbicides and insecticides. Runoff washes these products into waterways. If you must use a chemical lawn-care product, buy only what you need, follow the label instructions carefully, and wear protective clothing when applying.

• Easy on the fertilizer! Heavily fertilized lawns aren't necessarily the healthiest. Unused fertilizer runs off into lakes and streams, encouraging rank aquatic weed growth. Plus, your lawn will grow faster and you'll just have to mow it more often!

EVERYTHING BUT THE KITCHEN SINK

Ways to save resources and stop pollution can be found all around the house.

DNR PHOTO

A garage sale extends the useful life of hundreds of items.

Clotheslines are making a comeback. Save on energy costs by drying a few loads outside whenever possible.

• Use up your remaining lighter fluid, then get a newspaper lighter for your barbecue grill. Newspaper goes in the bottom of the metal can; briquets are place on top. You light the paper, which gets the coals going. No hazardous fluid is necessary.

• Stock your home office with recycled paper products — stationery, business cards, envelopes, computer paper, etc. Use the backs of old envelopes for notes.

• New, safer paint strippers and varnishes without methylene chloride can now be purchased at hardware stores. Check labels for hazardous or toxic compounds when you shop for paints, varnishes, caulks, putty, insulation and other home repair products.

• Designing a new home? Keep energy efficiency in mind! Plan for plenty of insulation in the walls and ceilings. Choose the most efficient windows and appliances you can afford, and take advantage of the sun's free warmth.

• If you need to remove asbestos or lead paint from your home, get professional advice or assistance. Contact the Division of Health at (608) 266-7168, 267-0928 or 267-2297 for asbestos or (608) 266-8176 or 266-5885 for lead.

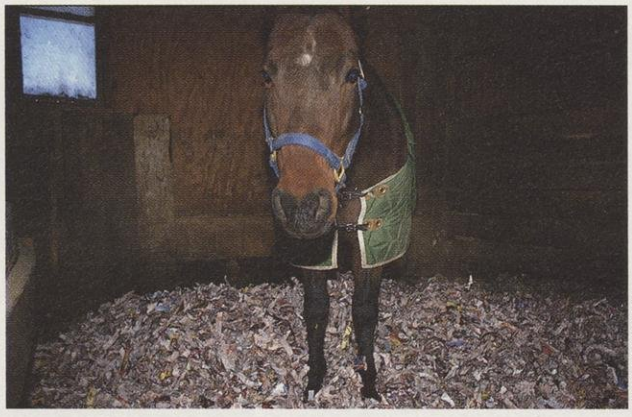
• To cut back on fuel consumption and air pollution, keep your car tuned-up. Try alternative fuels as they come on to the market.

• Recycle car and truck batteries — state law requires that all vehicle battery retailers accept used lead-acid batteries if you purchase a battery from them, or for a small fee from anyone else.

• Recycle used motor oil. Most communities have drop-off tanks for used oil.

• Rotate tires regularly to extend use.

• Most of all, walk, ride a bike or use public transportation whenever you can!

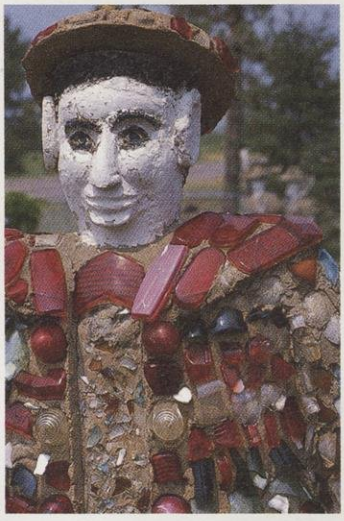


TRACEY TEODECKI

Horse sense: Recycle the front page and want ads into animal bedding!

Try reusable dinnerware on a picnic.

ALL PHOTOS BY ROBERT QUEEN



The art of recycling.

BEFORE YOU LEAVE...

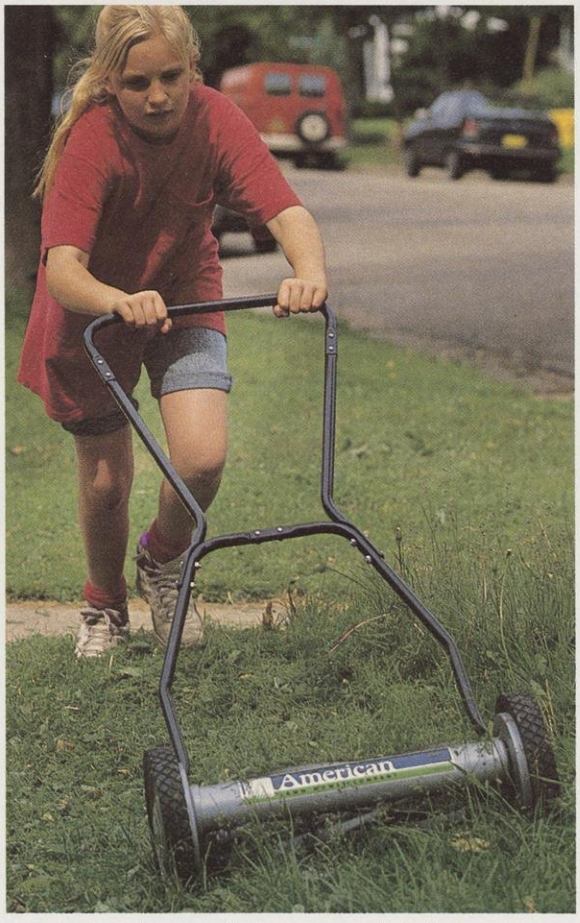
Don't walk out the back door without making a promise: That you'll try some of these ideas in your own world. Do it gradually — make one or two changes in your habits each month. By preventing waste and pollution right from the start, you'll save money and be a good neighbor to the people next door and the people on the other side of the globe.

FOR MORE INFORMATION

If you've got questions about recycling, composting or other topics, please write or call the staff of DNR's recycling program. They'll be glad to help or direct you to the people in your area who can be of assistance.

Wisconsin Department of Natural Resources
Waste Reduction and Recycling Section
Box 7921
Madison, WI 53707
(608) 267-3722 or 267-0873

Front cover: James Rhem, Sarah Lind and daughter Sophia recycling at home. Photo by Robert Queen.



A push mower burns no fuel — except calories!

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