

Community

Education Toolkit



Learning how to manage waste as a resource.



This toolkit was developed by the Solid Waste Management Coordinating Board (SWMCB). This version was updated in fall of 2014. It is intended for any community group in the Twin Cities metro area, including Community POWER (Partners On Waste Education and Reduction) grantees, wanting to educate others about the problems associated with producing too much trash and how to reduce, reuse and recycle.

The Solid Waste Management Coordinating Board (SWMCB) is a joint powers board comprised of two commissioners from Anoka, Carver, Dakota, Hennepin, Ramsey and Washington counties. To enhance intergovernmental coordination, the Board also includes ex-officio representation from the Minnesota Pollution Control Agency (MPCA).

The goals of the SWMCB are to increase the efficiency and environmental effectiveness of the Region's solid waste management system and save taxpayer dollars. Member counties use the SWMCB as the regional forum through which collaborative opportunities that cost-effectively improve waste management outcomes are identified and implemented.

INTRODUCTION

Many people do not know that almost 40% of what is thrown away can be recycled and some things we throw away can become hazardous to our environment. This toolkit will help you inspire, educate, and actively engage others to reduce trash and use less toxic products. It is designed for groups of any size, age, or composition. Whether you're organizing a group of volunteers, neighbors, or friends for a one-time event, leading a class or small group meeting, or working with a team of people in your organization, school, or neighborhood, this toolkit contains useful information for you.

As you page through the toolkit, you will find background information, resources, and activities to help you educate on reducing and reusing, toxicity reduction, recycling, organics management, and how to green your events and office resources. You will also find a variety of helpful websites and county-specific resources.

Tips for Success

- Work with others who are **committed** to helping the environment.
- **Share** the responsibility and the effort in planning and implementing your project.
- **Include** the staff, board, and/or volunteers from your group in setting goals and doing the work.
- Build on **existing** meetings, communication strategies, and events to launch your program.
- **Be consistent** and persistent with your message.
- Encourage people to **choose one thing** to change or do as a starting place.
- Work through **existing** networks and organizations that people already trust.
- Get advice from leaders, don't make assumptions, and be creative in your outreach.

Work with Your County

You are highly encouraged to visit your county's website or contact your county for assistance in making your educational efforts successful.

- Anoka County Integrated Waste Management: 763-323-5730 | recycle@anokacounty.mn.us
www.anokacounty.us/355/Integrated-Waste-Management
- Carver County Environmental Services: 952-361-1800
www.recyclecarver.org
- Dakota County Environmental Management: 952-891-7557 | Environ@co.dakota.mn.us
www.co.dakota.mn.us/Environment/RecyclingWasteReduction/Residents/Pages/default.aspx
- Hennepin County Environmental Services: 612-348-3777 | DESMail@co.hennepin.mn.us
www.hennepin.us/environment | www.facebook.com/HennepinEnvironment
- Ramsey County Environmental Health Section: 651-266-1199 | AskEH@co.ramsey.mn.us
www.co.ramsey.mn.us/ph/rt/education_and_resources.htm | www.facebook.com/greenramsey
- Washington County Dept. of Public Health and Environment: 651-430-6655 | PHE@co.washington.mn.us
www.co.washington.mn.us/index.aspx?NID=603

This publication is based on the successful environmental education program of the Solid Waste Management Coordinating Board called Community POWER (Partners On Waste Education and Reduction), Hennepin County's Community Group Toolkit, and the Minnesota Pollution Control Agency's fact sheets.

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REDUCE & REUSE

Participants will learn:

- Why and how to reduce and reuse.
- About packaging waste and the cost of packaging.
- About donation opportunities and other options for unwanted household items.
- How to get your name off junk mail lists.



Why is Waste Reduction Important?

You probably don't go to the store saying, "I think I'll buy some garbage today." But depending on which products you choose, that might be what you're doing. By purchasing items that are overly packaged, disposable, or of poor quality, your cash can soon end up as trash. Consider ways that you can reduce waste at home and when you shop. You'll do good for the environment, and you can even save some money!

Packaging contributes 31% of the weight and nearly 50% of the volume of all household waste. One out of every twelve dollars Americans spend on food goes to packaging.

- Earth911.com

Each year the metro area produces over 3.3 million tons of trash. That's enough to fill Target Field more than 25 times every year!

- RethinkRecycling.com Fast Facts

The average household in America receives more than 50 pounds of junk mail per year. That's more than 28,000 tons for just the Twin Cities metro area.

- Reduce.org

The average American uses about 500 shopping bags a year.

- [American Plastic Manufacturing](http://AmericanPlasticManufacturing.com)

Americans use 29 billion water bottles per year, which is about 93 per person per year! Less than one in six make it to the recycling bin.

- [National Geographic Kids](http://NationalGeographicKids.com)

How to Reduce and Reuse

Ten things you can do to reduce waste

www.rethinkrecycling.com/residents/reduce

1. Get your name off junk mail lists.

Go to www.reduce.org to find ways to get off junk mail lists.

Add privacy statements to anything asking for your contact information, asking not to be added to their mailing list.

2. Pack a no-waste lunch.

Use a reusable lunch box or bag and reusable containers instead of plastic bags or disposable containers. Don't forget a cloth napkin.

3. Use a reusable bag.

A bag made from durable fabric can replace hundreds of single-use plastic or paper bags.

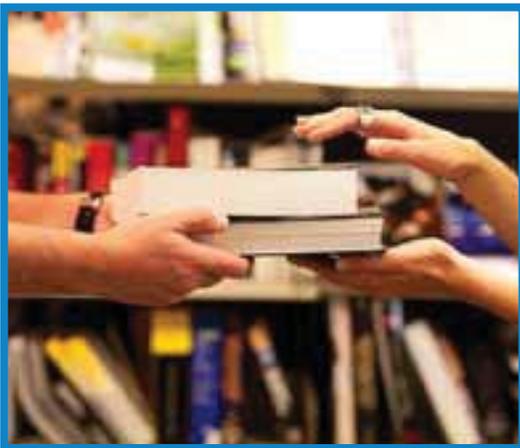


4. Bring a reusable mug or bottle with you.

Have a latte every day? Bring a reusable mug with you to the coffee shop. Buy water every day? Use a refillable bottle and fill it with water from a drinking fountain.

5. Look for less packaging and avoid disposables.

At the grocery store, buy in bulk and bring bags or containers to refill. Choose products with the least packaging over individually wrapped items. Besides preventing waste by avoiding the packaging, you'll also save money.



6. Borrow, rent and shop used first.

Before you run to the store to buy a new item, think about how much you will use it. Could you borrow one from a friend or neighbor, rent it at a local store, or purchase it used?

7. Buy durable, buy once.

Well-designed and constructed products that are repairable will last longer and usually save you money, even if they cost more initially.

8. Sell, give away, or donate usable clothing and household goods.

Donate reusable items to a local thrift store or non-profit organization.

9. Give green gifts.

Avoid over-packaged, resource-consuming gifts that will need batteries or electricity. Consider making a gift, sharing an experience, providing a service, or giving an environmentally-friendly product.



10. Educate yourself, friends, and family about waste reduction and reuse.

For details on the ideas presented above and to learn more, explore RethinkRecycling.com or reduce.org and spread the word!

Waste Reduction Activities

Waste Reduction Activity #1

Packaging Demonstration

Participants will compare the amount of waste produced and cost of food and drink products packaged in large containers versus single-serve containers.

Suggested supplies:

- Food and beverage items that are overly packaged and corresponding similar products with less packaging (see suggested list below)
- List of prices
- Calculators
- Handout: *Reduce Trash When You Shop* (attached at the end of this chapter)

Product	Less Waste/Cost	More Waste/Cost	\$ Difference
Sunny D	\$2.49 (64 oz jug)	\$4.66 (indiv. Bottles)	\$2.17
Crystal Light	\$.98 (3 pk powder)	\$3.87 (indiv. Bottles)	\$2.89
Propel Sport Drink	\$3.29 (powder)	\$7.65 (10 16.9 oz bottles)	\$4.36
Instant Oatmeal	\$3.79 (12.6 oz box)	\$8.34 (1.5 oz bowls)	\$4.55
Pringles	\$1.79 (6 oz cylinder)	\$3.19 (snack packs)	\$1.40
Baked Lays	\$3.99 (9 oz bag)	\$5.96 (indiv. bags)	\$1.97
Goldfish	\$3.99 (family-size box)	\$5.99 (indiv. Pouches)	\$2.00
Animal Crackers	\$2.89 (8 oz. bag)	\$5.65 (indiv. Boxes)	\$2.76
Popcorn	\$2.19 (2 lb bag)	\$8.85 (microwave boxes)	\$6.66
Raisins	\$2.89 (10 oz bag)	\$3.90 (1 oz boxes)	\$1.01
Craisins	\$3.89 (18 oz bag)	\$8.67 (1 oz boxes)	\$4.78
Total	\$32.18	\$66.73	\$34.55



* Items priced August 2014. The point of this activity is to compare the difference between the same food or drink packaged in two different ways. Although prices will change over time, there should be a lower price for the lower waste choice and higher price for the higher waste choice.

"The items in the left basket cost less than half the price of the same food and drink in the right basket and produce less than half the amount of waste."

discussion starters

Was anyone already buying the least waste packaging choices to reduce waste? What were you buying in these types of packages?

What types of containers could you use to replace the single-serve packages that cost more money and produce more waste?

Was anyone surprised by the difference in the prices?

In addition to avoiding overly packaged products, what else can we do when shopping to reduce waste? (Examples: take reusable bags for carrying groceries home, buy in bulk, use reusable containers, etc.)

How could our group or organization reduce waste from packaging? (Consider buying food and supplies in least waste packaging for your next event and distributing smaller amounts of food on reusable serving dishes or in something edible like an ice cream cone.)

Waste Reduction Activities



Waste Reduction Activity #2

Recycled Greeting Cards

Collect old greeting and holiday cards to make new cards from the old ones. The cards could be sold as a fundraiser or given to others.

Suggested supplies:

- Old holiday cards, scissors, glue, and new or created envelopes

Instructions:

Cut around or paste new paper over areas that were personalized or written on each card. Or, simply cut the used cards in half to make two-sided (rather than folded) cards. Create your own envelopes by folding larger cards, unused wrapping paper, construction paper, or even maps. Be creative!

Waste Reduction Activity #3

Reduce Junk Mail

The average American household receives more than 500 pieces of advertising mail each year. Share the handout *Hold the Mail* and discuss what people in your group have done to reduce junk mail. Mention that ALL paper junk mail can be recycled.



Consider creating a challenge to see how much junk mail your group can reduce.

Suggested supplies:

- www.reduce.org for instructions on removing names and addresses from mailing lists.

discussion starters

How much unwanted mail do you get every day or every week? What have you already done to reduce the amount of unwanted mail you receive?

Activity Extension

Make a junk mail tree

Create a two- or three-dimensional tree out of junk mail to emphasize that junk mail is paper and comes from trees. Supplies include junk mail (remove personal information), scissors, glue or tape, markers, and large sheets of paper (for a 2-D tree) or large cardboard rolls from carpet, fabric, paper towels, etc. to serve as the trunk of branches of a 3-D tree.

Ask participants to cut out "leaves" from junk mail and assemble a tree.

To educate others, display the tree in a prominent location with information on how to reduce junk mail.

Where to Get More Information

Community POWER Success Story

Reducing Junk Mail Campaign

For our Reducing Junk Mail campaign, our students conducted research, created a skit, developed a power point presentation, made buttons, created a huge bulletin board in the hallway to inspire their peers, and made t-shirts to wear when presenting to the public. They wrote out a plan and a schedule to help them achieve their goals.

My advice to groups who want to do a junk mail campaign of their own? No idea is too crazy, and the youth voice will always help you get your message through.

Sue Schmidt
Carver-Scott Educational Cooperative
2010 POWER Grantee

Print Resources:

- **From the Minnesota Pollution Control Agency**

- Reducing Waste at Home*
- Reducing Waste at School*
- Reduce Trash When You Shop*
- Reduce Trash in the Workplace

Request literature by e-mail:
resourcecenter.pca@state.mn.us
or call 651-757-2120.

PDF versions can also be downloaded from the [MPCA's website](#).

- **From Hennepin County**

- [Hold the Mail*](#)

**Attached at the end of this Toolkit.*

Online Resources:

- **RethinkRecycling.com**

Waste Reduction for Residents
Reuse Tips for Residents
Group Activity Ideas and Resources

- **Local Donation/Reuse Opportunities**

Anoka County (scroll down to "Reuse")

—*Reduce Waste and Buy Recycled* and *Shop Used First* publications

Carver County

Dakota County

Hennepin County | www.hennepin.us/choosetoreuse; www.hennepin.us/reducewaste

Ramsey County | RamseyAtoZ.com

Washington County

- **www.reduce.org**

Minnesota Pollution Control Agency's website for waste reduction tips

TOXICITY REDUCTION

Participants will learn:

- Why it is important to reduce exposure to hazardous chemicals.
- How to reduce exposure to harmful chemicals in the home.
- How to identify and choose less hazardous household products.
- How to make a non-toxic household cleaner.

Why is it Important to Reduce Exposure to Hazardous Chemicals?

Many common household products contain the same chemicals found in hazardous industrial chemicals and can create similar environmental and health problems. Although the quantity of household chemicals in individual households may be small, there are more than 1 million households in the Twin Cities, so the amount adds up.

Open a cupboard in your kitchen, basement, or garage and read a few product labels. If the labels contain any of these words – caution, warning, danger, poison – the products may contain hazardous materials.

Adults and children are exposed to chemicals through eating, breathing, and skin contact. Children are especially at risk for negative effects of chemicals. Pound for pound, children breathe more air, drink more water, and eat more food than adults. Infants and toddlers crawl on the floor and put their hands in their mouths, so they may have increased exposure to chemicals. Because children's bodies are still developing, they may handle these chemicals differently than adults. Improper use or disposal of household hazardous waste products could harm you, your family, or garbage hauler and could contaminate the air, water, and soil.

- **Don't throw chemicals in the garbage.**
- **Don't pour chemicals down the sink.**
- **Don't pour chemicals on the ground.**

Keep your home safer by using, storing and disposing of products properly. You'll be protecting your family's health and preserving the environment.



Household Hazardous Waste Facts

According to the U.S. Environmental Protection Agency, only a small fraction of the more than 75,000 registered chemicals have gone through complete testing for human health concerns.

- Reduce.org

Mercury can damage human health because it is toxic to the nervous system, which includes the brain and spinal cord. The greatest risk is to fetuses and young children because their nervous systems are still developing. Exposure to mercury in adults can affect vision, speech, hearing, thinking, and motor skills.

- U.S. Environmental Protection Agency

If you burn garbage in your backyard – in a traditional burn barrel, wood stove, or fire pit – you're making poison. Today's garbage contains materials that release a hazardous mixture of cancer-causing and other chemicals when burned. Backyard burning creates low-temperature fires which produce a variety of toxic substances that are released directly into the air without being treated or filtered.

- Minnesota Pollution Control Agency

How to Reduce Harmful Chemicals in Your Home

Ten simple changes you can make to reduce exposure to hazardous chemicals at home

1. If you have household chemicals that you don't want or need, dispose of them.

Give usable products to a friend or neighbor who will use them up. If products are unusable or you don't know someone who can use them, take them to your county household hazardous waste drop-off site. Visit RethinkRecycling.com/hhw for information on acceptable wastes and drop-off sites.

2. If you have a mercury thermometer in your home, take it to your county household hazardous waste drop-off site.

The drop-off sites accept fever and kitchen thermometers that contain mercury. If you need to use a thermometer, use a mercury-free alternative such as an alcohol or digital thermometer.

3. Use and store your household chemical products safely.

Follow instructions on the label. Read the entire label to learn directions for storage and use, including protective equipment needed such as gloves or eyewear.

- Keep each product in its original container with its own label. If you put a product in another container, transfer the original label or make your own label. (Remember, if you throw away the original label, you throw away important information on storage, safety, first aid, and the phone number for more information.)
- Store each product in a sealed container that doesn't leak. Don't mix products together.
- Keep products away from food, children, and animals.
- Store products in a dry place so that metal containers won't rust.
- Store products where they won't freeze. Water-based products such as latex paint may be ruined if they freeze.
- Store products away from sources of heat, flame, and sparks. Do not store products near your furnace or water heater.

4. Remove your shoes at the entrance to your home.

Your shoes can track in pollutants from outside. Keep a floor mat at the entrance for visitors.

5. Use a fabric shower curtain instead of a vinyl one.

A vinyl shower curtain or liner releases odors and chemical gases into the air in your home. Use a shower curtain made of canvas, hemp, or polyester instead.

6. Avoid chemical air fresheners.

To freshen the air, open the windows or simmer a mixture of cloves and cinnamon in water.

7. Avoid laundry and dishwasher products that contain chlorine or chlorine bleach (sodium hypochlorite).

If whitening is needed, use a non-chlorine bleach with oxygen or hydrogen peroxide.

8. Avoid the chemicals used in dry cleaning.

Clothes that have been dry-cleaned release perchlorethylene (perc) gas, a chemical that is suspected to cause cancer. Air out clothes that have been dry-cleaned before bringing them in your home. Better yet, buy clothes that don't need dry cleaning, or have clothes cleaned by an alternative cleaning process that does not result in the release of perc.

9. Use pump spray products instead of aerosols.

Aerosols put unnecessary chemicals in indoor air when you use them in the house. The mist produced by a pressurized aerosol can is finer and more easily inhaled than the mist from a pump spray.

10. Buy fewer household chemicals and buy less hazardous household products.

Use multipurpose cleaners to avoid buying many specialty cleaners. Use single-ingredient products (baking soda, white vinegar, lemon juice, salt) that serve several functions.



How to Identify and Choose Less Hazardous Household Products

- Read the label and choose the least hazardous product to do the job. A product with the signal word "Caution" on its label is less hazardous than a product with the signal word "Warning" or "Danger".

Signal words (Caution, Danger, Warning, Poison) indicate the degree or level of hazard of a product (i.e., how hazardous a product is). The following **characteristic words** indicate the hazardous properties of a product or the type of hazard a product poses. A product is hazardous if it is:

Flammable or combustible: The product can catch fire and support a flame. A product labeled *combustible* is slightly less hazardous than one labeled *flammable*.

Corrosive: The product can cause burns. The words *corrosive*, *acid*, *caustic*, *lye*, *alkaline*, or *causes burns to skin* mean that the product can burn the skin or eyes and can eat away other materials it contacts.

Toxic: The words *poison* or *harmful if swallowed* mean that the product is poisonous and can be harmful or fatal if swallowed, inhaled, or absorbed through the skin.

Reactive: The words *do not mix with ...* or *store separately from other products* mean that the product may react violently or produce toxic gas if combined with other substances. Examples include certain types of drain cleaners, oven cleaners or other products containing bleach, ammonia, or lye.

Become a label reader
Look for signal words on labels and choose the least hazardous product.

	Signal words	Hazard level
Less hazardous	Caution	mild/moderate hazard
	Warning	moderate hazard
	Danger	extremely flammable, corrosive or highly toxic
More hazardous	Poison	highly toxic

Source: Minnesota Pollution Control Agency

You may be tempted to simply buy products marketed as "natural," "green," or "environmentally friendly." It's important to remember that there are no standard definitions for these terms, and manufacturers are not required to list all of the ingredients in household chemical products.

A product may bear a logo or seal indicating that an independent inspection organization has verified that the product meets a set of meaningful and consistent standards for environmental protection. This can offer some assurance about the truthfulness of a product's environmental claims. Two organizations that provide this service for products are Green Seal and GREENGUARD Environmental Institute. Information about objective evaluation of products and third-party certification can be found on the following websites:

[Green Seal](#)
[GREENGUARD Environmental Institute](#)
[Consumers Union](#)
U.S. Environmental Protection Agency,
Design for the Environment, "[What Does the DfE Label Mean?](#)"

- You may also want to make your own products such as homemade cleaners. Keep in mind that it can be dangerous to mix products or chemicals together. A homemade product will likely be safer if it contains only one or two ingredients. Your best bet is to read product labels so that you can choose the least hazardous and most appropriate product for your needs. See the activity on making your own non-toxic all-purpose cleaner in the activities section of this chapter.

If you follow any or all of the above suggestions to reduce your exposure to harmful chemicals, you will make your home safer, and you will likely save money, too.

Toxicity Reduction Activities



Toxicity Reduction Activity #1

Inventory the Products in Your Household

Figure out where hazardous products are in your home. Go through the kitchen, laundry room, bathroom, basement, storage areas, hobby/craft areas, and garage. Make sure the products you want to keep are labeled and stored properly. Identify the products you no longer want or need.

Pack your unwanted household hazardous waste products for transportation to your county household hazardous waste drop-off site.

- Close containers tightly to prevent leaks.
- Place any leaking containers or powders into another container such as a plastic bucket with a lid.
- Place containers upright in a sturdy box lined with newspaper or plastic to prevent spills in your vehicle.

Find your household hazardous waste drop-off site at RethinkRecycling.com/hhw.

discussion starters

Are you surprised at how many hazardous products there are in your home?
Where in your home did you find the greatest number of hazardous products?
Were the hazardous products where children or pets could reach them?
Did you decide to store household products in a different location in your home?

Toxicity Reduction Activity #2

Make Your Own Non-toxic Cleaner

(Please note: Ramsey County does not recommend the make-your-own cleaner activity for organizations within Ramsey County. Please contact your local county staff if you have questions about planning or conducting this activity.)

Make a fragrance-free, all-purpose, non-toxic cleaner in a 32 oz. reusable spray bottle.

Supplies:

- 32-ounce reusable spray bottle
- Label saying "Non-toxic Cleaner" with the ingredients listed
- Measuring cups and spoons
- 1/2 cup white vinegar
- 3-1/2 cups hot water
- 1 tablespoon liquid dish soap

Instructions:

1. Pour vinegar into spray bottle.
2. Add hot water to spray bottle.
3. Add liquid dish soap.
4. Dry off spray bottle.
5. Tape label to bottle.

Use instructions:

Use this cleaner to remove grease and grime from hard surfaces such as countertops, appliances, sinks, and tubs. Spot test cleaner on a small area before using. If desired, rinse the washed surface and wipe it dry.



discussion starters

Add together the costs of the ingredients for the cleaner you made. How does the total cost compare to the cost of a similar all-purpose cleaner you can buy?

If you have used the cleaner, how effective is it? Did you have to let the cleaner sit longer on the surface to be cleaned or scrub a little harder to improve how well it cleans? Sometimes a less hazardous product requires more time to work or more elbow grease than a more hazardous product.

Where to Get More Information

Print Resources:

- **From the Minnesota Pollution Control Agency**

- Reducing Toxic Chemicals in Your Home*
- Reducing the Need for Pesticides and Herbicides*
- Household Hazardous Waste Disposal Guide*
- If You're Burning Garbage, You're Making Poison*
- Non-Toxic Cleaning Recipes*

Request literature by e-mail:
resourcecenter.pca@state.mn.us or call
651-757-2120.

PDF versions can also be downloaded from the
[MPCA's website](#)

- **From the Solid Waste Management Coordinating Board**

- Know What to Throw Guide (Contact your county to request printed copies.)

**Attached at the end of this Toolkit.*



Online Resources:

- **RethinkRecycling.com**

Household Hazardous Waste Information & Drop-off Sites
Toxicity Reduction & Resources

- **www.reduce.org**

Minnesota Pollution Control Agency's website for waste reduction tips

- **U.S. Environmental Protection Agency**

[Learn about Chemicals Around Your House](#)

- **National Institutes of Health**

[Tox Town](#): environmental health concerns and toxic chemicals where you live, work, and play.

RECYCLING

Participants will learn:

- The benefits of recycling.
- Things you can do to increase recycling.
- Which items are recyclable.
- Activities and resources to learn more about recycling.



Why Recycle?

Recycling saves energy, benefits our economy, and protects our natural resources. More items can be recycled now, and we expect to see more recycling opportunities in the future. Minnesotans recycle more than 2 million tons of material annually. Although we have one of the best recycling rates in the nation, there is still room for improvement. Recent studies show that 24% of our trash is recyclable paper and that more than half of the people in Minnesota don't recycle at all. Small acts of recycling add up to a big difference. When we learn how to recycle properly at home, in our schools, and on-the-go and then share that information with others, we can continue to increase recycling in our communities.

Materials that are recycled instead of thrown in the trash are manufactured into new products instead of filling up valuable landfill space. Manufacturing products from recycled materials uses far less energy than manufacturing the same product from virgin (new) materials. It takes 90% less energy to manufacture an aluminum can from recycled aluminum, about 50% less energy to make glass from recycled glass, and about 75% less energy to make paper from recycled paper. Recycling decreases our demand for fossil fuels, which protects our natural resources and increases our energy independence.

Recycling also has many benefits to the economy. In Minnesota, approximately 37,000 jobs are directly or indirectly related to the recycling industry. These jobs range from the trash and recycling haulers who pick up and sort recyclables, to workers at factories who make new products out of recyclable materials. For example, Rock-Tenn Paper in St. Paul makes new cereal boxes from recycled paper, and Anchor Glass in Shakopee makes new beverage bottles from recycled glass bottles. These jobs pay an estimated \$1.96 billion in wages and add nearly \$8.5 billion to Minnesota's economy.

Recycled materials are also worth money. The 2.5 million tons of paper, plastic, glass, and metal collected through recycling programs in 2010 was worth \$690 million. In the same year, Minnesotans threw away 1.1 million tons of recyclable materials that were worth an estimated value of \$210 million. Instead, it cost \$200 million in disposal costs, wasting valuable materials and losing revenue.

Recycling Facts

- A glass container can go from a recycling bin to a store shelf as a new container in as little as 30 days.
- Aluminum cans are the most valuable container to recycle and have the highest consumer recycling rate in the United States. Each year the aluminum industry pays out more than \$800 million for empty aluminum cans.
- It takes 75% less energy to recycle steel than to produce steel from iron ore.
- Only 37% of telephone books were recycled in 2009.
- Puffs® brand tissue boxes are made from recycled newspapers at the Rock-Tenn paper facility in St. Paul.
- A single, standard-sized corrugated box can be recycled up to eight times.
- The plastic recycling industry provides jobs for more than 52,000 Americans.
- Recycling one ton of paper saves at least 14 trees, three cubic feet of landfill space, and 7,000 gallons of water.

How to Increase Recycling

Ten things you can do to recycle more

1. Talk to your hauler, city, or county to find out what you can recycle.

Contact your hauler to clarify which items you can put in your curbside recycling bin. See Rethink Recycling's *Know What to Throw Guide* for items that most haulers will accept. Your local hauler is the best source of information about the specific materials collected in the recycling program at your home, business, or organization.

2. Look for recyclables in your bathroom, kitchen, laundry, garage, and storage area.

There are many items in your bathroom that can be recycled, such as shampoo, soap, and lotion bottles; boxes from toothpaste, medications, and other toiletries; and empty toilet paper rolls. You can also find many items to recycle in your kitchen and laundry, such as dishwashing liquid and detergent bottles, phone books, and junk mail. In your garage, look for used tires and scrap metal. In your office or storage area, look for cardboard, magazines, paper, electronics, and batteries. You may need to find drop-off options for materials not collected curbside.



3. Pair your recycling bin with a trash bin.

Always put the trash and recycling containers next to each other to make recycling as convenient as throwing something in the trash. If your trash bin and recycling containers are in separate locations, people may not make the extra effort, and you'll end up with trash in your recyclables or recyclables in your trash.

4. Stay up-to-date about what you can recycle.

As the market for recyclable materials continues to develop, materials accepted in recycling programs will change. Our waste stream continuously changes with the development of new products (e.g. cell phones, personal electronic devices, kid's toys, etc...). Manufacturers are finding new ways to make products out of these materials and are looking to make new products that are less toxic and easier to recycle. Therefore, keep checking with your local hauler and your city or county to see if there are any new materials they collect.

5. Let your voice be heard.

In order for haulers to collect your recyclables, there needs to be a market for recycled material so that haulers can sell them. In order for there to be a market, manufacturers need to use the recycled material to make new products. Consider contacting the manufacturer of a product to inquire about the recyclability of the product. The product manufacturer contact information can be found on the product or on the internet.

6. Buy products with recycled content.

Purchasing products with recycled content is vital to the recycling process, as it completes the recycling loop. Hundreds of everyday products, such as notebook and copy paper, polar fleece clothing, and yard and garden furniture, are made from recycled materials. When purchasing recycled products, look for those labeled "post-consumer," "pre-consumer," or "recycled-content."

7. Recycle more at a local drop-off location.

Check with your county (www.rethinkrecycling.com/contact-us) or city (www.rethinkrecycling.com/residents/recycle/city-recycling-information) to see if they offer drop-off locations to recycle large and bulky items such as appliances, electronics, excess cardboard, scrap metal or other items.



8. Recycle items while away from home.

Look for recycling containers at gas stations, businesses, and retail outlets. If they don't have any containers, ask the person or company in charge to consider making them available. Otherwise, bring a bag with you to collect your recycling to recycle at home.

9. Encourage recycling at parties or events.

Set out paper bags or containers and label them for recycling to encourage guests to recycle. Choose or encourage the use of reusable or recycled-content materials for beverage cups, plates, utensils, napkins, etc.

10. Recycle when you shop.

Many retail stores accept items for recycling, such as cell phones, plastic bags, and ink cartridges. Consider bringing items that can be recycled at retail locations the next time you are running errands.

Recycling Activities

The following activities are designed to help educate residents and community groups about what materials are recyclable in most community recycling programs. Contact your hauler for information about what's accepted in your home or building.

Recycling Activity #1 Recycling BINGO

Participants will learn about different types of items that are recyclable. The recycling BINGO activity is adaptable for groups of all sizes.

Suggested supplies:

- Bingo cards with images of recyclable items on the (a set of Bingo Cards are available at the end of the Recycling section of the Community Education Toolkit on RethinkRecycling.com)
- Bottle caps, buttons, paper clips, or something similar for markers
- Recycling bin/container filled with curbside recycling items
- Instructions (found at the end of this section)

Recycling Activity #2

Recycling Waste Sort

Depending upon the size of the group, you can do this as a large group activity or you can break the group into smaller groups. You could also choose to set up stations and have people do it individually and then come back as a group to discuss the answers.

The waste sort consists of a large trash bag of recyclable and non-recyclable materials. Tell the group that their job is to determine what items can be recycled and what items have to go in the trash. Have the individuals or groups place the items they think are recyclable in the recycling bin/container and the trash items in a large trash bag.



Suggested supplies:

- Large trash bag for each group
- Recycling bin (or a bag labeled "recycling") for each group
- Empty, clean containers or items that can be recycled (approximately 15 per group)
- Empty, clean containers or items that are non-recyclable (approximately 15 per group)
- List of what can and can't be recycled in your community

discussion starters

- Can you recycle all types of plastic containers?
- Can you recycle frozen or refrigerated paper containers?
- Which type of used battery can be thrown in the trash and which cannot?
- Where can you take your electronics to be recycled?

Recycling Activities

Recycling Activity #3

Recycling Relay

This team activity encourages your group to reuse and recycle before considering throwing something in the trash.

Suggested supplies:

- Clean but unwanted reusable items such as clothing, CD's, and small toys (5 to 10 per team)
- Empty, clean recyclables such as plastic bottles, cans (be sure to include tin), and paper (card board, phone books, office paper, junk mail, newspaper, magazines) (5 to 10 per team)
- Empty, clean trash examples (Styrofoam, foil juice pouches, chip and other snack bags) (5 to 10 per team)
- Three buckets or boxes per team



Instructions:

Gather a mixture of clean, reusable, recyclable, and trash items.

Organize three buckets or boxes: Label the first box "reuse" and place it closest to the start line. Label the second box "recycling" and label the final and furthest box "trash."

Team members are handed an item that they have to decide what to do with: reuse, recycle, or trash. They then run to the bucket, placing each item in the appropriate bin, run back, and tag the next team member.

The more items they reuse and recycle instead of throwing in the trash, the higher chance they have for winning. This also illustrates the idea that reuse is cheaper and uses fewer resources than recycling, and that recycling uses fewer resources than landfilling.

discussion starters

Review what was put in each box and have each team explain how they would have reused the items that they put in the reuse bin. The leader will confirm that the items they put in the recycling bin are really recyclable in your community, and discuss whether anything in the trash could have been reused or recycled.

Recycling Activity #4

Participate in America Recycles Day – November 15th



- Promote recycling and buying recycled goods.
- Display samples of clothes and goods that are made in Minnesota from recyclable material (see the Minnesota Recycled Products Directory at www.pca.state.mn.us). Encourage participants to shop for these items the next time they need them.
- Weigh or count the amount of recycling or number of bags (e.g. similarly sized paper bag or kitchen garbage bag) participants have recycled per week/month since the start of your campaign. Challenge them to make additional improvements in the coming months.

Recycling Activity #5

Tours

Coordinate a tour of a landfill and/or a Materials Recycling Facility (MRF) to provide participants a first-hand look at where their curbside recycling goes to be sorted and shipped to recycling markets. Allied Waste MRF in Inver Grove Heights has a dedicated education room with cameras on the sorting line to view the process. There is also a landfill adjacent to the MRF if a landfill tour is also desired. Contact your county (www.rethinkrecycling.com/contact-us) for additional tours offered in your area.

Where to Get More Information

Community POWER Success Story

Our Community POWER project was called Generation Green. We are a public charter school in Apple Valley. Our project impacted our students, their families, and the community. Being a K-8 school with about 400 students, we were generating six to seven extra-large bags of trash daily! At the end of our project the school was down to ONE bag!

Generation Green educated the students in our club about lunch waste/recycling/composting. The club kids in turn taught their fellow students. It was so exciting to see! As a school, we did many amazing projects throughout the year, including lunch composting and hosting, introducing natural cleaners, making holiday wrapping paper, all-school family night about the environment, and an Earth Day fair for the community. The biggest challenges were getting teacher support and engaging junior high students. Looking ahead, we are continuing Generation Green with a focus on reducing the school's use of plastic.

Crystal Dawn Kohler
Environmental Education Coach
Paideia Academy
Apple Valley, MN



Print Resources:

- **Recycling BINGO cards and instructions***
- **From the Solid Waste Management Coordinating Board**
—Know What to Throw Guide ([Contact your county](#) to request printed copies.)

**Attached at the end of this Toolkit.*

Online Resources:



- **Recycling Tips for Residents**
- **www.recycleminnesota.org**
Minnesota Pollution Control Agency's website about recycling in Minnesota. The website includes curbside recycling information as well as recycling options for non-traditional materials.
- **Minnesota Pollution Control Agency**
[Recycling web page](#) of facts, tools, and resources to learn more about recycling and different recycling programs.

Recycling BINGO Instructions

Contents:

- Bingo cards with pictures or photographs of recyclable items on them (see sample Bingo Cards at the end of this toolkit)
- Bottle caps, buttons, paper clips, or something similar for markers
- Recycling bin/container filled with curbside recycling items
- Instructions (also included at the end of this toolkit)

Instructions

1. Assign one person to be the BINGO 'caller'
2. Distribute cards and bottle cap 'markers' to players
3. Caller selects an item from the recycling bin
4. Caller describes the item to the players
 - a. Explain the material (plastic, paper, metal, etc)
 - b. Point out any notable characteristics (bottle with a neck, recycling symbol on the container, etc)
5. Caller asks the players to determine if the item is recyclable
6. Players locate it on a card and cover with a bottle cap 'marker'
7. Caller continues to select items and call out items until someone calls out BINGO



*Try variations of BINGO, the caller can select to play regular BINGO, four corners, postage stamp or black out BINGO at the beginning of each game.

BINGO caller tips:

The recycling bin contains several recyclable items. To allow for longer discussion, it is recommended to call out the items by the EXACT item as listed on the BINGO card. For example, there are several types of plastic containers.

Recyclables in the bin can include:

- Mixed mail (junk mail, flyers, bills)
- Metal can (soup cans, soda cans)
- Shoe box
- Milk jug
- Cereal box
- Shampoo bottle
- Toothpaste box
- Band-Aid box
- Mayonnaise bottle
- Salad dressing bottle
- Syrup bottle
- Cleaner bottle
- Ketchup bottle
- Paper towel roll
- Newspaper advertisement
- Newspaper
- Toilet paper roll
- Magazine
- Water bottle
- Aluminum can
- Office paper
- Glass jar
- Pasta box
- Cracker box
- Aluminum foil
- Paper bag
- Glass bottle
- Dish soap bottle
- Shredded paper
- Telephone book
- Lotion bottle
- Tissue box
- Cardboard
- Glass bottles and jars
- Pop bottle
- Laundry detergent bottle
- Milk carton
- Margarine tub
- Juice box
- Plastic cup
- Soup carton
- Medicine box
- Yogurt tub
- Clear plastic container or "clam-shell" from baked goods, fruit, take-out etc.

ORGANICS MANAGEMENT

Participants will learn:

- How and why to manage organic waste.
- What can be composted in your backyard bin vs. your curbside bin.
- How to make a backyard compost bin or a worm compost bin.
- Where to go for more information on the best organics management method for you.

Why Manage Organics?

Why throw our food waste and food-soiled, non-recyclable paper (hereafter referred to as “organics”) into a landfill where the valuable nutrients provide no value? There are several options for residents and organizations to manage their organic waste more effectively.

It is estimated that organics such as food waste and non-recyclable paper represent almost 1/4 of the weekly residential single-family waste stream. Eliminating organics from the waste stream also eliminates the odor coming from your trash bin. Organic management methods, such as composting and using compost in your lawn and garden, replenish valuable nutrients in soil and aid in creating healthy, hearty soils that allow plants to flourish. Learn what you can do individually or as an organization to start managing your organics and reducing your waste stream.

How to Manage Organics:

There are many options throughout the Twin Cities metropolitan area for people to manage food waste. Depending on where you live and how much organic waste you generate, options include:

- Food-to-people
- Food-to-hogs
- Backyard or community composting
- Vermicomposting (composting with worms)
- Curbside collection of organics
- Organics drop-offs

Contact your county to discuss options that would work best for you or your organization.



With soil in the US eroding 17 times faster than it naturally forms, composting helps rejuvenate soil nutrients, helps soil retain water, and reduces, if not eliminates, the need for commercial fertilizers, allowing us to grow healthier food.

- Maine Bureau of Land & Water Quality

Homeowners--not farmers--are the biggest consumers of pesticides and herbicides. Using compost instead of chemicals helps soil quality and prevents runoff of potential harmful chemicals

- Minnesota Pollution Control Agency

How to Manage Organic Waste

Six ways to reduce waste

www.rethinkrecycling.com/residents/compost

1. Food-to-People

Edible food should be eaten! Plan ahead, bring take-home containers and send leftover food home with guests. Deliver larger quantities of leftover food from your gathering to a food shelter. Take pride in your willingness to keep leftover food from becoming waste.

2. Food-to-Hogs

If your organization continuously has leftover food or food scraps, consider participating in a food-to-hogs program. Leftover food waste and food scraps can all go into one container that will be picked up by a hog farmer who will use your leftovers to feed the animals. Barthold's Farms runs the largest food-to-hog program in Minnesota. By using your leftovers to feed the pigs, less demand is put on cash crops such as corn and wheat.



3. Backyard Composting

Backyard composting can be done by anyone with a yard or property space for a container. Pre-made containers can be purchased, or you can make your own. Cities, counties, nurseries, and many other organizations have compost bin sales every year. Contact your county for more information on upcoming spring sales. Many home improvement stores and lawn and garden stores also offer these bins year round. See the Print Resources at the end of the toolkit for fact sheets on how you can start backyard composting at your home, community garden, or organization.

4. Vermicomposting

Most people believe that living in an apartment hinders options for composting at home. This is not true; people without a yard can still compost inside their home. Vermicomposting – composting with worms – can be done anywhere!

Worm compost bins come in all shapes and sizes. Anything from an ice cream pail to a plastic storage tub can be made to work, or you can purchase a genuine worm compost bin. Refer to the "How to Compost with Worms" handout at the end of this toolkit to learn how to begin composting with worms.



Worms can process the equivalent of their own weight in waste every day.

5. Curbside Collection

Contact your waste service provider (hauler) for more information on availability of curbside yard waste and/or curbside organics collection in your area. Curbside collection is an option for residents, organizations and businesses, depending on your hauler.

Materials collected through these programs go to commercial compost facilities. Because these facilities receive significantly higher volumes of material, their compost piles reach and maintain higher temperatures for longer than a backyard compost bin and can accept more materials than what are suggested for backyard bins. Some of these additional materials include: dairy products, meat, and bones.



6. Yard Waste Drop-off:

Yard waste drop-off locations have existed for decades. Contact your county to find a location near you.

Organics Management Success Stories

School Organics Program

More than half of Minneapolis Public Schools are now collecting and recycling their organic waste with their R.O.T. ("Reduce Our Trash") Program. R.O.T. also represents their bin labeling system: Recycle, Organics, Trash. The District is diverting 33 tons of organics material each month. With the additional waste diverted from their organics program, some of the schools are recycling more than 50% of their waste!



Food-to-Hogs

Schools in the St. Francis School District have recycled 1.3 million pounds of food waste since 2002 through their food-to-hogs program. The program's greatest success is teaching students that their food waste is not garbage, but a valuable resource.

Community Composting

Residents participating in the District II Community Council's gardening program, under the tutelage of a Ramsey County Master Gardner, learned how to use garden and kitchen waste to augment soils. Three of four community gardens have been enhanced with a communal composting site.



Organics Management Activities

Organics Management Activity #1

Recognize the problem!

Collect your food waste separate from your garbage for one week.

Start with a fresh garbage bag and a container with a lid for your food waste. You could also add a separate container for your non-recyclable paper, and of course keep your recycling the way it is. For one week keep all food and plant waste in the container with a lid. Either place your non-recyclable paper into a paper bag or add it in with your food waste. Reminder: Don't forget about your facial tissues, cotton swabs, and paper towels – they're compostable too!

Observe how little garbage you create each week when you pull out all the organic materials along with your recyclables. Notice how your garbage doesn't smell? Notice how easy the initial separation was to do? From here, check your options. Contact your waste hauler to see if they provide organics collection. Based on what you observed throughout this trial week, you may be able to reduce the overall cost of waste services at your home by adding organics pickup and decreasing the size of your garbage container. Even more impressive, by removing all the organics (the smelly stuff), you may wait twice as long or even longer to take out your garbage.



If your hauler does not offer organics service, consider delivering organics to a drop-off location, or start vermicomposting or composting in your backyard. Use the fact sheets at the end of this toolkit on starting worm compost bins or backyard composting.

Organics Management Activity #2

Edible Compost Pile

Have kids make their own edible compost. Ask who knows what composting is. Explain how we can turn leaves, grass, and other vegetation into compost that helps our plants grow.

Give each kid a clear – preferably compostable – plastic cup and a spoon. That will be their compost bin. Ask them what types of things they might compost at home (grass, leaves, coffee grounds, banana peels, old vegetable scraps, etc.) and then show them all the fun “compostable” treats they'll get to put into their compost cup.

Start with some chocolate pudding to represent the finished compost. It will work best to scoop a small amount of pudding into cups at the beginning of the activity, then have an adult help each child scoop up “compostables” into their compost bin as they walk through the line.

Compostable items to add:

- **Life cereal (leaves)**
- **Oreos (coffee grounds)**
- **M&M's (old veggies)**
- **Marshmallows (banana peels)**
- **Granola (grass and garden clippings)**
- **Gummy worms**

Get creative and see what other fun food items make good “compostables” for your treat!

Finally, add in gummy bugs/worms and talk about how microorganisms break down the organics into “dirt.”

Have them stir it up to represent how you should stir your compost to get a good finished product. Time to eat!



Organics Management Activities

Organics Management Activity #3 Backyard Composting

- Start composting indoors (see attached sheet)
- Start composting in your backyard (see attached sheet)
- Run tests in your backyard compost bin
 - Determine the best feedstock
 - Determine the best mixing technique
 - Track the degradation of a paper cup or other compostable products. Test one full cup and one ripped up cup. Note the difference in time it takes to degrade.
- Using your finished compost from your backyard bin, use yogurt cups to plant a series of seeds. Plant seeds in standard potting soil, plant seeds in a half potting soil, half compost mix, and plant seeds in 100% compost. Label each container appropriately, give each the same amount of water and sunlight, and see what happens!

Compost in Your Backyard Bin:

- Fruit and vegetable scraps
- Plant trimmings (no diseased plants)
- Leaves and grass clippings
- Straw
- Acorns
- Coffee grounds and filters
- Rinsed egg shells

Do NOT Compost in Your Backyard Bin:

- Dairy products
- Fats and oils
- Meat or bones
- Pet waste
- Whole eggs

These items cannot be composted in your backyard because your pile cannot get hot enough and retain that heat for long enough to ensure all bacteria are properly broken down. In commercial composting facilities, the items listed above, with the exception of pet waste, can be composted. The volumes of materials received at commercial composting facilities and processing techniques ensure the piles stay hot enough for long enough to reduce pathogens within the compost piles.

A Recipe for Good Clean Dirt: Backyard composting is similar to making a recipe. It may take some time, but you need to tailor your recipe (materials added, turning frequency, etc.) to effectively compost your waste.

For more information or troubleshooting ideas for backyard composting, view the handouts at the end of this section.



Where to Get More Information

Curbside Collection/Drop-off:

If delivering yard waste – including grass, leaves, brush, and plant and tree trimmings – to a local yard waste drop-off, compostable bags are not required. However, most sites will make you debag the yard waste and take the bags home with you.

If you choose to use bags for collecting your yard waste and organics for curbside collection in the Twin Cities metropolitan area, paper bags or certified compostable bags are required for pick up unless you use a cart. Yard waste and/or organics placed in a standard black or white plastic bag will not be collected. Use paper bags or look for this logo to identify certified compostable plastic bags that can be used for collection of your yard waste.



Print Resources:

- **From the Minnesota Pollution Control Agency**
 - How To Compost Your Organic Waste*
 - Diagnosing Common Backyard Composting Problems*
 - Compost Your Food Scraps Indoors (Worm Composting)*
 - How To Grow A Healthy, No-Waste Lawn and Garden*
 - Reduce The Need For Pesticides and Herbicides*

Online Resources:

- **RethinkRecycling.com**
Composting Information for Residents
- **www.reduce.org**

Request literature by e-mail:
resourcecenter.pca@state.mn.us
or call 651-757-2120.

PDF versions can also be downloaded
from the [MPCA's website](#).

**Attached at the end of this Toolkit.*

GREENING YOUR EVENTS

Participants will learn:

- Why and how to plan an event that has less impact on the environment.
- Quick facts about waste from events.
- What to use to make your event green.
- How to give no-waste gifts and use alternative gift wrap.

Why are Green Events Important?

Gatherings can generate a significant amount of waste in a short period of time. Events of all sizes have many options to reduce their impact on the environment. Learn what you can do to reduce waste and start recycling at your events!



How to Green Your Events:

Whether it's a large community festival or your Thursday night book club, Green Gatherings (RethinkRecycling.com/event) has a wide range of resources to help you learn why going green matters and what can work for your event.

Green Event Facts

A 2006 study of 25 different venues and events in California indicated that on average 2.44 pounds of waste is generated per visitor per day.

CalRecycles.ca.gov

From Thanksgiving to New Year's, the average household generates 25% more trash than any other time of the year.

Environmental Protection Agency, epa.gov

Collecting name badge holders for reuse at an event of 100 attendees can save about \$75 per event.

RethinkRecycling.com

A typical dinner travels more than 1,500 miles before it's served. Eating local food greatly reduces the consumption of fossil fuels and wasteful packing materials.

*National Resource Defense Council
NRDC.org*

Using reusable china rather than plastic disposables for meals served at a one-day event with 100 attendees can save approximately 17 pounds of plastic waste.

RethinkRecycling.com

Steps You Can Take to Make Your Event More Environmentally Friendly

1. Planning Your Event

- Send electronic invitations – many free options are available.
- Ask guests to RSVP so you can plan for the right amount of food.
- Purchase items that can be recycled or composted.
- If planning a business meeting, request that presenters provide electronic copies of their presentation rather than printed copies.
- Check with the event location to find out if sufficient recycling bins are available, or make sure you provide them if you are the host.

2. Shopping for Supplies

- Plan your shopping in advance so you make fewer trips to the store.
- Rent or borrow party games, tables, and decorations instead of buying new.
- Choose locally grown food that is in season. Purchase produce from a farmer's market and ask your bakery if they use local ingredients.
- If local food is not available, choose organic food sourced in the USA.
- Buy non-perishable food in bulk.

3. Hosting Your Event

- Turn the heat down before guests/attendees arrive.
- Encourage guests to carpool, bike, or use mass transit.
- Provide recycled paper nametags or reusable name badges.
- Send out electronic copies of presentations instead of printing handouts.
- Use reusable dishes, glasses, utensils, and linens. You can rent, borrow, or buy them secondhand.
- Place clearly marked recycling bins next to trash cans.
- Send leftover food home with guests/attendees (bring extra food storage containers from home) and compost your fruit and vegetable scraps.
- Use bulk pour dispensers and containers for condiments. For example, provide a sugar bowl and large bottle of ketchup instead of individual packets.



4. Gift Giving

- Purchase or make your own greeting cards from recycled paper or used greeting cards. Avoid musical greeting cards, which require special disposal.
- Send electronic greeting cards – many free options are available online.
- Give the gift of an experience, such as tickets to a sporting event or concert, or membership to the zoo, a museum, or arboretum.
- Create personal "gift of time" coupons for a service or talent you can offer, such as free babysitting, housecleaning for a day, or cooking lessons.
- Look for gifts that are long lasting, non-toxic, or energy saving.



5. Gift Wrapping

- Use recyclable wrapping material like the comics section of the newspaper, or old maps.
- Reuse decorative boxes and gift bags.
- Reuse packing peanuts or bubble wrap for packing material, or use pages of a newspaper or magazine.
- Reuse bows, ribbon, and gift tags from previous gifts.
- Make the present part of the wrapping, like wrapping a kitchen gadget inside a dishtowel and tying it together with ribbon.

Green Events Activities

Green Events Activity #1

Host a Green Birthday Party

Discuss ways to make your next birthday party a low-waste event and consider doing activities from other sections of this toolkit at your party.

Starter questions:

- Where will you have the birthday party?
- How many guests will you invite?
- How will your guests be invited?
- What food will you serve?
- What will you do with the leftover food and beverage containers?
- What activities will you do?

Green Events Activity #2

Make Your Own Gift Wrap or Bags

Instead of spending money on new wrapping or gift bags, make your own. Friends and family members will enjoy receiving something handmade.

- Decorate plain newsprint, brown Kraft paper, boxes, grocery bags or old cardstock using stencils, collage, crayons, or markers (these papers can be recycled later).
- Use old gift wrap, newspapers, fabric, or wallpaper scraps to make a gift bag.



Search "make your own gift bag" on the Internet for pattern ideas.

- Enlist the help of people who can sew and create reusable cloth gift bags. Encourage people to give gifts in the bags and reuse them each year. The bags could also be sold as a fundraiser. Find instructions at www.wikihow.com/Sew-a-Cloth-Gift-Bag.

More Green Events Activity Ideas

RethinkRecycling.com/event

Where to Get More Information

Print and Online Resources:

- **From Ramsey County**

- Greening Up Your Parties* (If you need a temporary recycling bin, contact your county.)

*Attached at the end of this Toolkit.

- **RethinkRecycling.com/event**

RethinkRecycling.com has information to help you plan a green event of any size. Resources including planning guides, tips, case studies, helpful links, and more are provided to help you get started with going green at your next event. Try one or try them all - pretty soon you'll find the "shade of green" that's right for you!

- Dakota County [event resources](#)
- Hennepin County [Event recycling and waste reduction planning guide](#)
- Eureka Recycling [Zero-Waste Event Planning](#)
- Washington County [Recycling Container Loan Program](#)



Green Gatherings Success Story

At our Community POWER program meetings, which usually consist of about 100 people, we work with local caterers to offer affordable, local, organic and healthy food options for breakfast. We also use a caterer that can offer cloth napkins, reusable dishware, and bulk yogurt, juice, etc. We collect food scraps for backyard compost. We also ask for RSVPs to ensure portion control.

We make sure to use an event space that already offers recycling to ease the set up. We make sure to announce where the recycling containers are located at the beginning of the meeting and that they are properly placed for our specific event. We also promote what is recyclable at the building to all presenters so that they can mention and help encourage recycling.

We RSVP and promote the event electronically. We offer one double-sided handout with necessary contact information, and also make it available online after the event to be accessed electronically in the future. We reuse all of our signs by keeping them generic and not using dates and storing them in a plastic protective insert so they do not get damaged. We also have participants bring their own existing name tags and coffee mugs to reduce waste.

Community POWER Grant Program
Solid Waste Management Coordinating Board

GREEN OFFICE RESOURCES

Participants will learn:

- Tips for reducing waste in your day-to-day operations.
- How to set up a reuse system in your office and how to donate materials.
- Tips for starting or improving a recycling system in your organization.
- How to purchase greener products and supplies.

Why is Greening Your Office Important?

When your organization begins to educate others about environmental issues, you may also want to look at internal operations and make changes to improve your group's environmental performance. The following tips and resources can help you implement these changes.



To increase recycling, label your recycling and trash bins as clearly as possible. For example, place large, color-coded labels both on and above the bins that include examples of recyclable and disposable materials. It is also important to place all of your bins in the same location. People are more likely to recycle something than throw it away if the recycling bin is right next to the trash can.

Five Ways to Green Your Office:

1. REDUCE

Preventing waste from being generated in the first place is the easiest and most effective way to lower disposal costs. Look for creative ways in your day-to-day operations to reduce waste.

- Avoid unnecessary printing and make double-sided printouts and copies. Start a paper reduction campaign in your office.
- Use e-mail for communications and consider using e-newsletters to reduce paper usage.
- Check documents carefully before printing and edit drafts on the computer.
- Reuse scrap paper for notepads.
- Use a small fax transmission sticker instead of using a large cover sheet.



- Use reusable cups and dishware for meetings. Encourage attendees to bring their own reusable coffee mug.
- Encourage employees to pack lunches in reusable containers. Providing a microwave, refrigerator, and an area for dishwashing and dishware will make this easier for staff.
- Use non-hazardous or less-hazardous cleaning supplies.

2. REUSE

- Set up a system in your office for reusing office supplies and equipment, such as a central storage area or online database.
- Consider donating office equipment and materials that your business no longer needs. Go to RethinkRecycling.com/businesses and look under donation opportunities for options.
- When shipping items, reuse packaging materials or use shredded paper.
- Use reusable name tags at meetings.

Five Ways to Green Your Office

3. RECYCLE

- Make sure your organization is recycling as much as possible. Office paper, newspapers, magazines, cardboard, plastic bottles, metal cans, and glass are all recyclable.
- Make sure recycling containers are clearly labeled and readily available. Check with your county to see if they have recycling labels and promotion materials available for you to use.
- To encourage recycling, eliminate trash bins in individual offices; place them in the break room and common areas instead.
- Start an organics recycling program. Organic waste (food waste and food-soiled paper) can be recycled into compost, a valuable resource used in landscaping and road construction projects. Your county may offer assistance in setting up an organics recycling program.



4. DEVELOP A GREEN PURCHASING PROGRAM

- Purchase environmentally-preferable office supplies and equipment. Environmentally preferable products contain recycled content, are sustainably harvested, are made with less toxic materials, or conserve energy or water. Learn more at www.pca.state.mn.us, search "eppg".
- Purchase printers with double-sided printing capabilities.
- Purchase refillable toner cartridges.
- Buy office supplies in bulk.
- Purchase recycled-content office paper. Set a standard for recycled-content paper used in your organization.
- Encourage suppliers to ship materials in returnable or reusable containers.
- If you're providing food at your organization, purchase locally grown, in-season, organic food when possible. Also buy non-perishable food in bulk. If you're hiring a caterer, choose one that purchases locally grown and/or organic food.

5. KEEP HAZARDOUS MATERIALS OUT OF THE TRASH

Certain supplies and products that may be used in your business, such as electronics, cleaners, fluorescent light bulbs, appliances, cleaning supplies, and paint contain hazardous or toxic materials and must not be placed in the trash. Check with your county for information on the business hazardous waste program in your area.

Where to Get More Information

Print Resources:

- **From the Minnesota Pollution Control Agency**

—Reducing Waste in the Workplace*

Request literature by e-mail: resourcecenter.pca@state.mn.us or call 651-757-2120. PDF versions can also be downloaded from www.pca.state.mn.us and search “resource center”.

- **From Ramsey County**

—Green Your Meetings www.co.ramsey.mn.us and search “green meetings”.

*Attached at the end of this Toolkit.

Online Resources:

- **RethinkRecycling.com**

Information for businesses, schools, and organizations, including a step-by-step guide to help you develop and maintain a waste management program.

[Business Recycling Guide](#)
[Event Planning](#)

- **Minnesota Materials Exchange**

This free service connects businesses and organizations that have quality reusable goods they no longer need to those that can use them. Find low-cost or free materials, save money on disposal, and find new markets for surplus materials.

- **Minnesota’s Sustainable Healthy Schools Program**

Resources for parents and educators including a “Guide for Change,” “Assessment Tool for Change,” and success stories.

- **Minnesota Technical Assistance Program (MnTAP)**

A free, non-regulatory program that provides businesses and organizations with company-specific, cost-saving solutions to manage waste and improve energy efficiency.

- **Minnesota Retiree Environmental Technical Assistance Program (ReTAP)**

ReTAP employs skilled, retired professionals to provide free, confidential, non-regulatory pollution prevention, waste reduction, and energy conservation assistance to Minnesota businesses, industries and institutions.

- **Minnesota Waste Wise**

A private, non-profit, member-supported organization affiliated with the Minnesota Chamber of Commerce that helps businesses and organizations reduce waste and save money.

- **United States Environmental Protection Agency**

[Environmentally Preferable Purchasing Information](#)

PRINT RESOURCES

This section includes various resourceful handouts from the Minnesota Pollution Control Agency and SWMCB counties. Print and online resources not included in this section are referenced throughout the Toolkit.

CHAPTER 1: Reduce & ReUse

Minnesota Pollution Control Agency Publications:

- Reducing Waste at Home
- Reducing Waste at School
- Reduce Trash When You Shop

Hennepin County Publication:

- Hold the Mail

CHAPTER 2: Toxicity Reduction

Minnesota Pollution Control Agency Publications:

- Reducing Toxic Chemicals in Your Home
- Reducing the Need for Pesticides and Herbicides
- Household Hazardous Waste Disposal Guide
- If You're Burning Garbage, You're Making Poison
- Non-Toxic Cleaning Recipes

CHAPTER 3: Recycling

See Recycling Section

CHAPTER 4: Organics Management

Minnesota Pollution Control Agency Publications:

- How To Compost Your Organic Waste
- Diagnosing Common Backyard Composting Problems
- Compost Your Food Scraps Indoors (Worm Composting)
- How To Grow A Healthy, No-Waste Lawn and Garden
- Reduce the Need for Pesticides and Herbicides

CHAPTER 5: Greening Your Events

Ramsey County Publication:

- Greening Up Your Parties

CHAPTER 6: Green Office Resources

Ramsey County Publication

- Green Your Meetings



If not you, who?

Reducing waste at home

Households in Minnesota are creating and throwing away more waste than ever. From junk mail to excess paint to food scraps – it takes a lot of time and money to deal with all of this garbage! Fortunately, there’s a lot you can do to reduce your waste at home. Besides, nobody likes taking out the trash...



What can I do?

Reduce excess paper at home

A good portion of what you throw in the garbage each day is paper. Much of the paper generated in our homes comes in the mail. The average American household receives more than 500 pieces of advertising mail each year.

You can take action to reduce the amount of unwanted mail you receive.

- ▶ Households can significantly reduce their advertising mail by registering with the Direct Marketing Association’s *Mail Preference Service*. For more information, go online at www.dmaconsumers.org or call 212-768-7277.

- ▶ If you just want to stop certain catalogs, you can contact individual mailers and ask them to remove your name from their mailing lists; call them or send your request by mail or e-mail.
- ▶ There’s also a toll-free number to stop mailings of credit card offers. One call to 1-888-5-OPT-OUT will reach the major national credit bureaus, Equifax, Experian and Trans Union.

Benefits: Recycling junk mail is good, but reducing the flow of junk mail will conserve natural resources, save landfill space, and save you time and money.



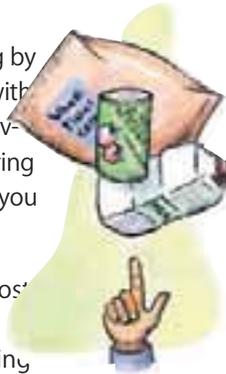
TO LEARN MORE
www.reduce.org

Reduce **packaging** waste

Packaging makes up 30 percent of municipal solid waste. You can reduce the amount of packaging you throw in the garbage by purchasing items that have less packaging.

Examples: Reduce the amount of packaging by purchasing concentrates and diluting them with water in reusable containers. Avoid single-serving products in favor of larger servings or buying in bulk. Take your own reusable cloth bag so you don't need *paper or plastic*.

Benefits: Over-packaged products often cost more than less packaged products. This means that you can save money when buying products with less packaging.



Reduce **mercury** in your home

Mercury evaporates easily and travels great distances through the atmosphere. It ends up in our lakes and rivers where it accumulates in fish and other creatures. Mercury, a nerve toxin, is especially dangerous when ingested (i.e., eating contaminated fish) by pregnant women, women planning to have children in the future, and children. The best way to keep mercury out of the home and the environment is not to buy mercury-containing products. However, when that's unavoidable, when it comes time to throw these products away, make sure they are taken to a household hazardous waste facility for recycling.

Example: Mercury is found in many common household items such as fever and cooking thermometers, tilt switches in many thermostats, steam irons with 15-minute auto shut-off, neon lamps, older batteries, fluorescent lamps, switches that stop washing machines when the top is open, "silent" wall switches, mercury vapor, high pressure sodium and metal halide lamps.

When buying these types of products, look for non-mercury alternatives, like digital fever thermometers and alcohol-based cooking thermometers. Replacing your thermostat? Consider a digital or electronic one that contains no mercury.

Benefits: It is against the law to throw mercury-containing products away in the garbage. Proper management of mercury-containing products means keeping the mercury intact and bringing it to your local household hazardous waste site. Efforts like these to remove mercury from our garbage have meant lower mercury emission levels from waste disposal.



Prevent food waste **and compost organics**

According to the USDA, 27 percent of the nation's total food supply — 97 billion pounds — was wasted in 1995. Food is wasted in many ways, such as preparing too much, letting fresh food go bad and buying too much.

Examples: Planning meals and creating a list of what you need before you go to the grocery store will help you buy only what you need. Composting leftover fruit and vegetable food waste with your yard waste helps create high nutrient compost. Donate excess canned goods to a food shelf.

Benefits: Making better use of the food you buy will save you money and reduce how much food you throw away. Composting the remaining food waste will provide you with a great additive for your garden.

www.redlize.org



*Tilt switches like this one from an older household thermostat contain a potentially dangerous amount of mercury. When it comes time to replace mercury-containing items such as this, don't throw the old ones in the garbage! Bring them to your local **household hazardous waste drop-off site**. Then choose mercury-free alternatives.*

Use the least hazardous cleaning products



In a state the size of Minnesota with about 4.4 million people, approximately 572 tons of liquid cleaners and 132 tons of toilet bowl cleaners are washed down the drain each month. Read the labels of cleaners and look for the signal words — *caution*, *warning*, *danger* and *poison* — which indicate the level of

hazard. Use the least hazardous product to do the job. (*Caution* is least hazardous and *danger* is most hazardous. Extremely toxic products must also include the word *poison*.) Read the instructions on how to use cleaning products and be sure to use the correct amount. Remember, you won't get twice the results by using twice as much.

Example: Reading labels gives you information on how to use a cleaning product correctly and how dangerous a product might be. You could also consider using a substitute for cleaning projects around the house. For example, vinegar and water work well to wash windows and floors. Another idea is to share any excess products with someone else who can use them, such as your neighbor or friend. Instead of buying many different types of cleaners, use one general-purpose cleaner.

Benefits: With so many choices of products to clean your house, it can be difficult to choose the best one for your household. Buying cleaning products with the least dangerous signal word and using substitutes will reduce the amount of hazardous chemicals in your home.



Buy the right amount of paint for the job

In 1998, almost 4 million pounds of excess paint were collected at Minnesota's household hazardous waste sites. A large volume of this paint was still useable. If stored correctly, paint stays in good condition for a long time. If it mixes smoothly, it can still be used.



Example: Before you begin a painting project, measure the area first. Calculate the area to be painted (height x width = total square feet). One gallon covers about 400 square feet. To prevent paint from drying out, cover the paint can (use its original container) with plastic wrap, replace the lid securely and store upside down. Protect your paint from freezing. Use leftover paint for touch-up jobs, smaller projects or as a primer.

Benefits: Using either low-VOC or water-based paint, stains, finishes and paint stripper will help keep hazardous chemicals out of your home. Using up paint instead of disposing of it is the best method to deal with leftover paint.

Become a label reader

Look for key words on labels and choose the least hazardous product.

Less toxic ↑ More toxic	Caution	mild/moderate
	Warning	moderate hazard
	Danger	extremely flammable, corrosive or highly toxic
	Poison	highly toxic

Reduce the need for pesticides in your home

If you're looking for a way to decrease your use of chemicals in your home, take a look at how you handle unwanted pests. The best method to control pests inside the home is to clean up crumbs and spills quickly. Instead of reaching for a can of toxic spray, grab a broom!

Example: Good housekeeping and proper maintenance of your home help prevent pests from entering your home.

- Eat only where you can clean up spills easily and completely.
- Store food in tightly sealed containers.
- Eliminate moisture problems and leaks.
- Keep vegetation and debris away from the foundation.
- Caulk cracks and weather strip windows and doors to eliminate easy paths of entry.
- Need to treat pests or weeds bugs you already have? Less-toxic alternatives are available for a majority of pests.

Benefits: Pesticides are designed to kill weeds, insects, rodents, mold and moths. Even disinfectants are a type of pesticide. These chemicals can be poisonous and a danger to pets, livestock, wildlife and even humans. Eliminating the need for pesticides is the best way to keep pests — and chemicals — out of your home.



Find **new** life for **old** furnishings, appliances and clothes

Instead of discarding your unwanted furniture, appliances, tools or clothes, try selling or donating them to groups and organizations that accept used goods. When deciding to purchase an item, consider buying used. Those items are less expensive than new ones and are often just as good.

Example: Donate or resell items to thrift stores or other organizations in need. You could receive a tax deduction or cash for them. Buy and sell secondhand items at fairs, bazaars, swap meets and garage sales. Organize a garage sale in your neighborhood to encourage your neighbors to get involved in reducing waste.

Benefits: You can save money as well as reduce waste by purchasing furniture, appliances and clothes used.



Maintain your **vehicle**

Cars can be a large source of pollution both through tailpipe emissions and through maintenance. The regular servicing of vehicles creates waste that needs special handling, especially used oil and oil filters.

Example: Follow manufacturer's recommendations for vehicle maintenance: change your oil regularly, keep the tires inflated correctly and have it serviced regularly. Always make sure you properly dispose of your used oil and filters. Also, try to find ways to use your car less by walking, biking, riding the bus or car pooling to your destination.

Or combine your errands to reduce the number of trips you make. Both of these will reduce "wear and tear" on your vehicle, as well as curb air pollution.

When purchasing a new or used car, first ask yourself what you need (i.e. vehicle and engine size), and buy according to your needs.



Benefits: Proper maintenance of your car will ensure that it will last longer, save you money and reduce the need to buy a new one. Finding other ways to get to where you need to go lowers emissions given off into the environment. Properly managing waste oil and oil filters keeps these contaminants out of landfills and energy recovery facilities (garbage incinerators) and helps protect our natural resources.

www.reduce.org

Reduce Waste — *If not you, who?*



Creating less Trash at School

There are lots of ways that we can reduce waste at school. By thinking ahead and being creative, you can reduce your impact on the environment and save money at the same time.

What's the problem?

Garbage follows us everywhere we go. We generate waste at home, work, and school. In fact in **one week**, the average Minnesotan throws away more than **40 pounds of garbage**. The garbage generated in Minnesota in one year would fill four lanes of trucks, bumper-to-bumper, stretching from Albert Lea to International Falls. Even with our best efforts to recycle and compost, the amount of garbage keeps increasing every year.



Packaging amounts to 32 percent of Minnesota's garbage. Typically, the more packaging a product has, the more expensive it is. You can save up to 50 percent of the cost of a product by buying the **least packaged product**.

The good news is that everyone can do something to reduce the amount of trash they throw away.

Even while at school each of us can have a major impact on the amount of garbage produced in our state by becoming aware of how much we throw out and changing some of our **habits** when buying and using things.



What can I do?

Pack a no-waste lunch

A no-waste lunch is a meal that does not end up in the trash. You can buy food items in bulk then put them in reusable containers to carry to school.

Example: Use a reusable lunch box or bag and fill it with your lunch in reusable containers. You could also include a cloth napkin – don't forget to bring it home so you can wash it and use it again. Another idea is to ask your school cafeteria to use items such as reusable trays, napkins, and silverware.

Benefits: You create less waste by using washable containers to pack your lunch. Packing your food in reusables is typically less expensive than buying food that comes in disposable containers.



TO LEARN MORE
www.reduce.org

Carry a few reusables

At the beginning of each school year, it seems as if we need to buy lots of supplies. When you go to the store, look for durable, long-lasting supplies.

Example: Refillable pens and pencils, a durable backpack, and a lunchbox are all great examples of products that can be used over and over again.

Benefits: Items that can be used more than once will reduce waste. If you take care of them, they will last a long time — and maybe you won't have to buy new ones next year!



Take only as much food as you will eat

More than 20 percent of the food we buy gets thrown away. One way to figure out how much food you waste is to measure and track all the food you throw away from your lunch over a fixed period of time. Then you could brainstorm ways to reduce how much food you are throwing in the garbage.

Example: If you are bringing lunch from home, you can use an icepack so that it stays fresh until it is eaten. If you buy from the school cafeteria, only take a small portion of food; if you're still hungry, go back for seconds!

Benefits: About 48 million tons of food are thrown away in the United States each year. By taking only what you can eat or sharing your extras with a friend, you are taking steps to waste less and save money.

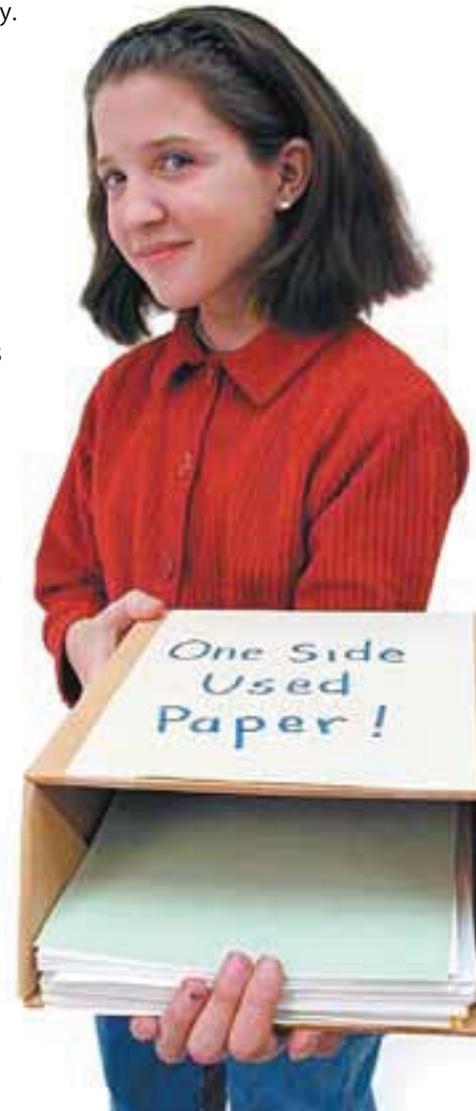


Use less paper

Even though we recycle much of the paper we use, it is still a significant part of what we throw in the trash. Think about all of the paper you've thrown away that only had writing on one side. Those pieces of paper could have been used a second time, potentially cutting your paper use in half. Also, by buying paper and notebooks that contain recycled paper, you complete the recycling loop.

Example: Make room in your classroom or at home to put paper that has only been used on one side. Use that paper for notes, or feed the blank side into your printer for draft documents. You can also make scratch pads out of that single-sided paper by binding one side. Can you "go paperless?" Ask your teacher if you can hand in assignments on a computer disk or via e-mail instead.

Benefits: Because paper and packaging make up such a large part of our garbage, by using less paper you can reduce up to 40 percent of the trash that is thrown away.



TO LEARN MORE
www.reduce.org



Conduct a junk mail campaign

Another large source of paper that is thrown away every day is unsolicited mail. You

can help your school office collect unsolicited mail and contact the companies to get off their lists.

Example: Make this into a project by measuring how much unsolicited mail your school receives in a week. Tear off the mailing labels and send them back to the mailer along with a note saying, "Please take us off your list." After a few months, measure the unsolicited mail again. You can then determine how much waste has been eliminated; think about the staff time saved by not having to go through all of that unwanted mail.

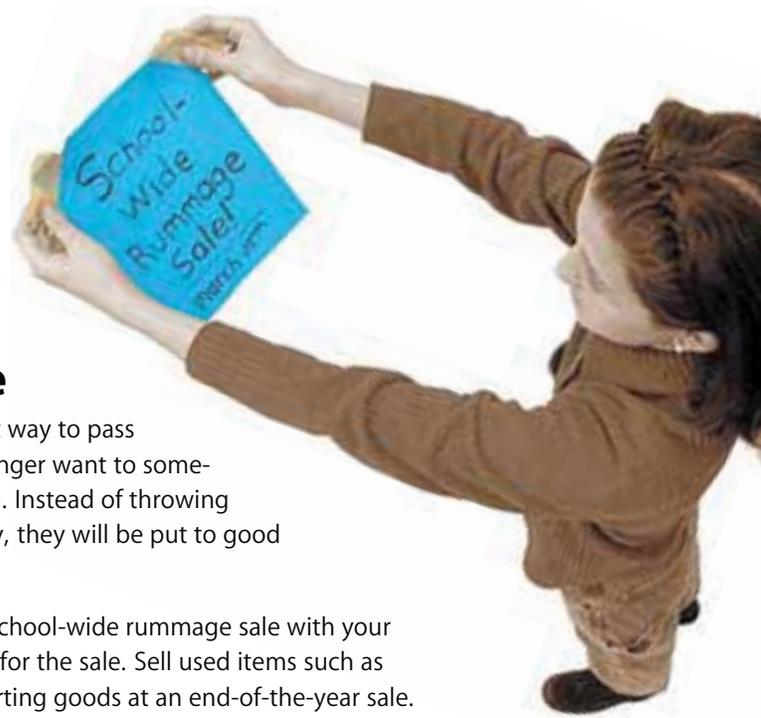
Benefits: Decreasing junk mail not only saves paper and reduces paper waste, but takes less time to sort and recycle the mail each day.

Organize a school-wide rummage sale

Rummage sales are a great way to pass along items that you no longer want to someone who might need them. Instead of throwing your unwanted items away, they will be put to good use.

Example: Plan a class or school-wide rummage sale with your teacher. Collect donations for the sale. Sell used items such as clothes, furniture, and sporting goods at an end-of-the-year sale.

Benefits: Buying used items is not only cheaper, but someone else's trash might be your treasure!



Used Chic

Buying things used is inexpensive and prevents waste. Don't let current fashion fads dictate what you buy: set your own style.



Wool sweater: \$3.50



Yellow bicycle: \$10



Boombox: \$15

Duluth School gets A's in Reduceology 101

Stowe Elementary School in Duluth instituted a waste reduction program in the school that focused on the cafeteria. They switched from disposables to reusables, started to separate recyclables, increased food ordering accuracy, and set up a vermiculture project (worm bins) to compost food waste.

In a second project, they created model service learning projects. The projects took what students learned within the classroom and applied it outside of the classroom for the benefit of the Stowe enrollment community. Projects included reseeding a bare field adjacent to the school, building a composting system for the zoo, helping control trail erosion along some park trails, and creating awareness of how drains link directly to the river by stenciling them. They also organized a community-based service learning project by creating a nature trail near the school.

Their most recent project focuses on alternative energy. Stowe School purchased solar panels, a wind turbine, and

an inside meter to measure the energy created and the electricity used in the school's worm composting building. The school will teach students about energy generation and consumption for grades kindergarten through fifth grade.



Get informed and become more aware

Talk to your teacher about starting or joining an environmental group at school or look for ways to increase your awareness of natural surroundings and environmental issues.

Example: Set up a school waste reduction campaign with your environmental club. You could turn visits to nature areas and parks into service learning class projects.

Benefits: Being informed about environmental issues will give you the knowledge to help yourself and others become environmentally friendly. Connecting your activities with nature helps to increase appreciation and gives extra motivation to take actions to preserve and protect it.



TO LEARN MORE ABOUT WHAT YOU CAN DO:

www.reduce.org



Minnesota Pollution
Control Agency

April 2008

Attention educators:



www.seek.state.mn.us



Minnesota's interactive
directory of environmental
education resources

- Thousands of EE resources
- Information about EE organizations
- Job postings, calendar, news
- *A GreenPrint for Minnesota*
- *Environmental Literacy Scope and Sequence*
- *MN Report Card on Environmental Literacy*

Contact:

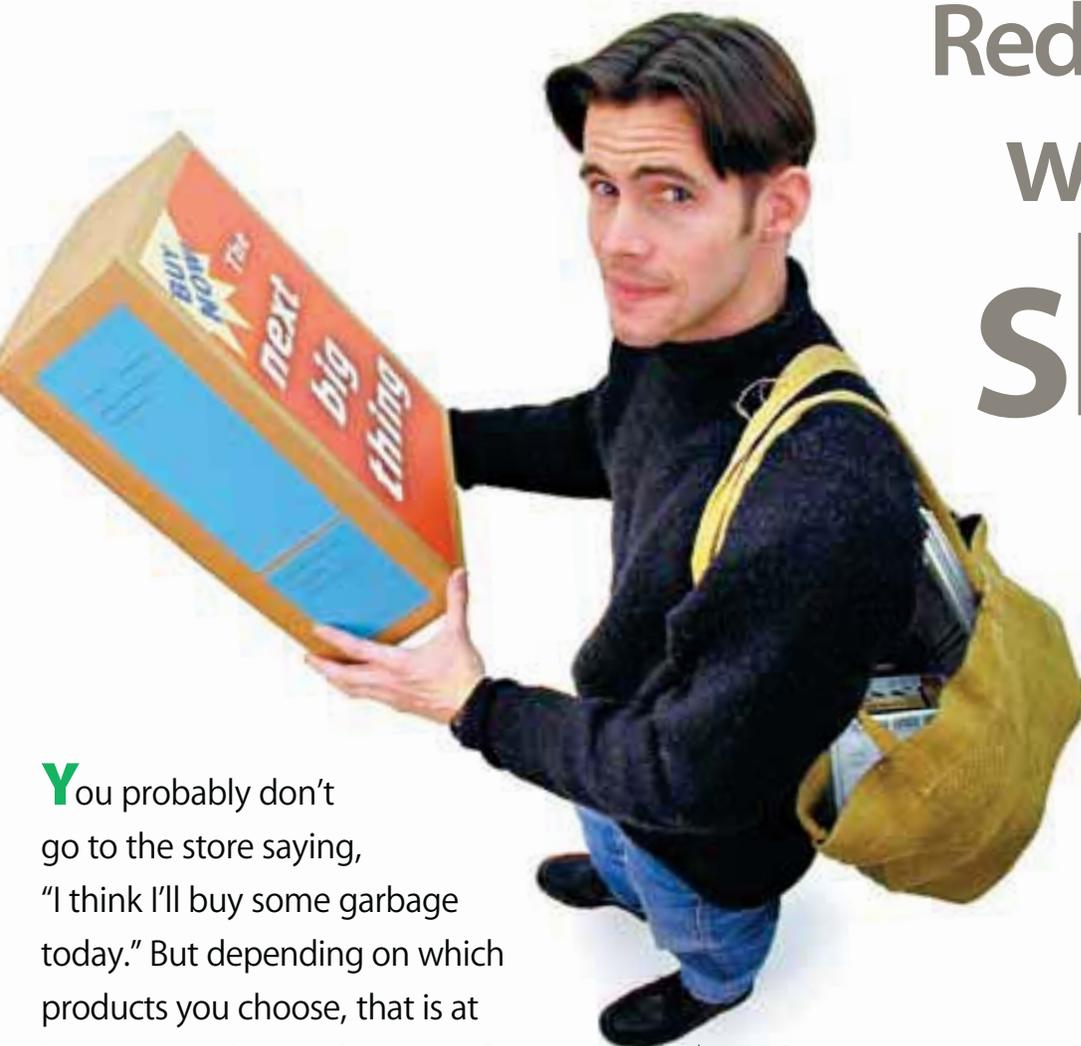
SEEK Coordinator
520 Lafayette Rd. N., 2nd floor
St. Paul, MN 55155
1-888-668-3224 toll free
651-215-0256 direct phone
seek@pca.state.mn.us



Your county solid waste office is a great resource for waste reduction materials, including local waste and environmental information, education resources, and speakers.

Reduce trash when you shop

and save some
money, too



You probably don't go to the store saying, "I think I'll buy some garbage today." But depending on which products you choose, that is at least partly what you're doing. By purchasing stuff that's over-packaged, disposable, or of poor quality, your cash can soon end up as trash.

And we pay for this garbage again and again — when it's picked up by the garbage haulers, and through our taxes which help pay for things like recycling, landfilling, incineration, and clean-up.

Reducing the waste you create through your buying habits helps prevent the costs and hassle of trash.

TO LEARN MORE
www.reduce.org

Bring your own bag

An easy way to reduce shopping waste is to use fewer bags. Bringing your own bags to the store is easy once you get in the habit. Durable bags of cloth or string are great, but disposable types can be reused, too — bring back that sack!

Shopping tips:

- Keep several reusable bags — you'll probably need more than one.
- Store bags in your car, backpack, or purse. After unloading your purchases, put those bags back so you'll have them next time.
- Establish a habit. Put a note on your dashboard or front door to remind you to bring your bag along. Challenge yourself to reuse a bag for your next five shopping trips.



Benefits: A sturdy reusable bag makes shopping easier, and reusing conserves resources. By carrying your own bag you'll show that you care about the environment and set a good example for others.

Get the most out of what you buy

Purchase products in bulk or with the least amount of packaging



Buy what you need and buy products in bulk containers and concentrates with less packaging. Shop in the bulk aisle at the grocery store for things that you seem to be buying often and have

long shelf lives such as detergents, dog food, pasta, cereal, cleaners, and paper products. Buying in bulk will decrease waste and the total cost. Watch out for individually wrapped items that are packaged together and sold as a bulk item. You will be getting a lot more packaging than you were counting on.

Example: Next time you go to the store, make a list of what you need. Then look for opportunities to buy in bulk or buy products that have less packaging. Look at a product and think about how much of what you are paying for will end up in the trash.

Benefits: Not only are you saving money, but you won't have to go to the store as often.

When you shop smart by buying things in bulk or in concentrate, you can reduce the amount of packaging headed to the trash.



Michigan State University School of Packaging conducted a study on the waste reduction benefits of buying less-packaged items. The study suggests that if residents in a city the size of Minneapolis bought the least packaged equivalents of 10 common household products (e.g., cereal, juice, pasta, tuna, etc.), the city could reduce its trash by **150,000** tons per year.

TO LEARN MORE
www.reduce.org

The things we buy today will eventually become waste in the future. To protect your investment and prevent wasting time and money, here are some questions to ask before you buy.

Is it reliable? Ask the "experts" — people or organizations who have tested or repaired the product you want to buy. Evaluate the repair history of that product. Compare warranties. A longer warranty often means that the manufacturer feels confident that it will last longer.

What does it really cost? The purchase price is not the same as the cost to use and maintain a product. The longer you own something, the less it costs over time.

Can I repair or upgrade it? Buying products that are easy to repair will make your initial investment last longer. Upgrading lets you have "state-of-the-art" equipment with less waste.



ELECTRONICS



TOYS



FURNITURE

Extending the life of your rechargeable devices

do

- Read and follow the charging instructions provided with your product. Each charger uses a specific strategy to charge the battery.
- Charge your new battery overnight before using it. This is called "initializing" and will enable you to obtain maximum battery capacity.
- Let a discharged battery cool to room temperature before recharging. A warm battery will signal a thermal cut-off switch to stop the charging process prematurely, and the battery will not get a full charge.



don't

- Avoid recharging batteries when they are close to fully charged already. A discharged battery can be detected by a sharp drop in speed or power, or by a reduction in the number of power indicators.
- Don't return a fully charged battery to the charger for an "extra boost." This can overcharge the cells and significantly shorten their life span.
- Don't use the charger as a stand. Only use the charger if your rechargeable appliance — phone, power tool, or electric razor — needs to be fully recharged. Continuous charging will shorten battery life.

Source: Rechargeable Battery Recycling Corporation



Each month in Minnesota, approximately 572 tons of liquid cleaners and 132 tons of toilet bowl cleaners are washed down the drain.

Choose the least hazardous cleaning products

With so many choices of products to clean your house, it can be difficult to choose the best one. Instead of buying many different types of cleaners, use one general-purpose cleaner.

Buy cleaning products with the least dangerous signal word: caution, warning, danger, or poison. Use the least dangerous product to do the job. You can also try home remedies such as vinegar and water to cut grease, and baking soda to scrub stains.

Become a label reader

Look for key words on labels and choose the least hazardous product.

Less toxic ↑ ↓ More toxic	Caution	mild/moderate
	Warning	moderate hazard
	Danger	extremely flammable, corrosive or highly toxic
	Poison	highly toxic

Buy green products

Minnesota residents are great recyclers. Our recycling rate is consistently among the highest in the nation. Nearly half (47%) of what we discard is recycled.

But there's more to recycling than putting your newspaper, glass, plastics, and metals out on the curb each week. Consumers should look for recycled content in the products they buy.

Recycled products are high-quality, proven products that perform as well as their non-recycled counterparts. By using recycled materials, the manufacturers of recycled products create less pollution and use less energy.

Recycling is good for Minnesota's economy, too. When you buy recycled-content products, you're supporting more than 8,700 Minnesota jobs and preserving the environment.



ConsumerReports®

magazine has a broad selection of informational products and services that can help you shop wisely, make informed choices, and save money and time. Consumer Reports can be found at most libraries, magazine stands and bookstores or visit their web sites at www.consumerreports.org and www.greenerchoices.org.

Why buy if you can get it for free?

Get or give free reusable goods for the home, garage, and garden at twincitiesfreemarket.org. It's open to residents of the seven-county Twin Cities metropolitan area, and very simple to use. Another option: craigslist.org has a Free section.

Evaluate the products you buy and use

Look for something in your home that you rarely use. Did you need to buy it or could you have rented or borrowed it? Is it durable? Will you have to buy another one again if it fails? By asking yourself these questions you can save yourself money and time by only buying items you really need.

Rent or borrow instead of buying

By renting equipment, you can avoid having to purchase items that you may only use a few times. Some of the most commonly rented items are trailers, lawn care equipment, tables and chairs, ladders, power tools, tents, and tree-trimming equipment. You could also borrow items from friends or family to avoid purchasing.

Example: Rent or borrow items for your family or neighborhood get-together. Churches and schools are great resources for tables and chairs, and tents can be rented from most party rental centers. Renting reusable dishware from banquet halls for events and gatherings can prevent waste from disposable cups, plates, and silverware.



Benefits: Renting items saves you money and time, plus it can reduce the amount of trash created by these events. Often the rental center will drop off and pick up the items for you.

Slightly worn in

Options for reuse of consumer goods are alive, well, and here to stay if we make a conscious effort to locate and support them. There are a number of local resources and contacts to help you find reuse opportunities in the marketplace.

Consumers can access reuse opportunities by “letting their fingers do the walking” through the local newspaper’s classified ads and the Yellow Pages. Businesses promoting reuse can be found under categories such as antiques, rental service stores, salvage, secondhand stores, and thrift stores.

Other categories in the Yellow Pages —such as appliances, books, camping equipment, clothing, compact disc (and other recording media), computers, and sporting goods—include listings for businesses that rent these things or sell them secondhand.

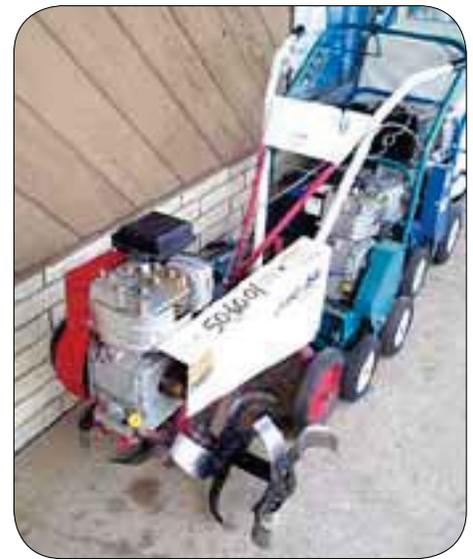


To learn more about what you can do:

www.reduce.org



Your county solid waste office is a great resource for waste reduction materials, including local waste and environmental information, education resources, and speakers.



Heavy-duty or professional-grade equipment can make the task go easier. And renting the right tool keeps it affordable. Why buy something you will need to store but rarely use?

Living
Green
365



Need a reminder? Sign up for the Living Green 365 e-newsletter and receive monthly tips for living green, and a calendar of community events and resources. Living green means making choices and taking action to lead a healthier and more sustainable life.

Sign up at www.livinggreen.org

Minnesota Pollution
Control Agency



Hold the Mail

SIMPLE STEPS TO SIGNIFICANTLY REDUCE THE AMOUNT AND HASSLE OF JUNK MAIL



STANDARD MAIL
(third-class) in 2006:
Shipped: 5.89 million tons
Recycled: 2.28 million tons (38.7%)
Garbage: 3.61 million tons (61.3%)

Source: U.S. EPA

Every year each person gets an estimated 39 pounds worth of third class mail. An average household receives up to 100 pounds—it's time to get rid of that extra weight by reducing your junk mail!



Hennepin County
Environmental Services
612-348-3777

hennepin.us/junkmail



guide for recycling management.

Attention.....If you want help translating this information, call 612-348-3777
Atención.....Si desea recibir asistencia gratuita para traducir esta información, llama 612-348-3777
Ogow.....Haddii aad dooneyso in lagaa kaalmeeyo tarjamadda macluumaadkani oo laceg la' aan wac 612-348-3777
Ceeb toom.....Yog koj xav tau kev pab txhais cov xov no rau koj dawb, hu 612-348-3777

TDD/TTY 612-596-6985

How to lose 39 pounds of unwanted mail

Control your exposure

The best way to keep your name off of mailing list is to control your exposure. Most importantly, to keep your name off lists long term, think about how often you give out your contact information. This includes:

- Product warranties
- Professional associations
- Publication subscription
- Utilities (phone, gas, electric, water, cable)
- Financials (bank, credit insurance, car or home loans)
- Churches, non-profit and social groups
- Contest sweepstakes and give-aways
- Shopping (writing checks, ordering online)

Consistently add a privacy statement to anything you put your name on, asking not to be added to their mailing list. You can also request that your name not be sold or shared with other organizations.

What to do with the mail you still receive

Sort mail directly into recycling bin.

You can place a recycling bin near your desk or wherever you do the most paperwork, to make recycling easy and convenient.

Mail you can recycle:

- magazines
- catalogs
- all mail—including window envelopes
- greeting cards
- coupon advertisements

Shredded mail can be recycled.

You may prefer to shred (or tear up) personal documents containing data that might be used to gain access to your current accounts or open a false account in your name. Some people don't recycle their mail because they are concerned about protecting their identity. However, mail and other papers are no safer in the trash. If you shred your paper, you can still recycle it. Place it in a closed paper bag and label it "shredded paper."



CONSISTENTLY ADD A PRIVACY STATEMENT TO ANYTHING YOU PUT YOUR NAME ON, ASKING NOT TO BE ADDED TO THEIR MAILING LIST.



SHREDDED PAPER CAN STILL BE RECYCLED. PLACE IT IN A CLOSED PAPER BAG AND LABEL IT "SHREDDED PAPER."

Contact companies directly

Not all companies use national systems to purge their mailing lists so here are tips for when you contact them directly, and contact information to make it easier to do so.

Contacting companies directly: Tips

- **Be polite.** Most mailers will make an effort to comply with your request — they get to improve their database and ultimately reduce their costs. If you don't get results, you can consider stronger language, or contacting company management.
- **Be prepared.** Have the mailing label or catalog handy. Give them the exact match for your name and address. Customer ID numbers or other internal identifiers are very useful to provide.
- **Be patient.** It may take some time to get your name and address out of their mailing cycle.
- **Be persistent.** Keep trying. Drive home the message that your privacy is an important part of customer service. You do have the right to be left alone.

Contacting companies directly: Links

1. Credit offers

The nation's major consumer credit bureaus (Equifax, Experian, Innovis and TransUnion) offer a toll-free number to remove your name from pre-approved credit card offers. The recording asks for social security number, name, address and phone number.

- Online: www.optoutprescreen.com
- Call: 1-888-5-OPTOUT (1-888-567-8688)

2. Mail list brokers and marketing associations

These firms or their members provide national lists for non-financial data:

- Direct Marketing Association (DMA)
 - Online: www.dmachoice.org
 - Mail: You can print and mail a registration form from www.dmachoice.org
- Polk Company
 - Call: 1-800-464-7655—ask for the “Opt Out” line.

3. National mailers

These national advertisers compile and maintain large databases of customers nationwide, often for mailing coupons or local, weekly circulars. These materials are generally printed well in advance of mailing, so expect a delay of 6-8 weeks for this opt-out to take effect.

- Red Plum (Mailbox Values), ShopWi\$e
 - Online: www.advo.com/consumer-support.html
 - Call: 1-888-241-6760
 - Mail: print the form at www.advo.com/document/remove.pdf, complete, and mail to Valassis Direct Mail, Inc. Consumer Assistance, PO Box 249 Windsor, CT 06095
- Val-Pak Direct Marketing Systems (Cox Target Media)
 - Online: www.coxtarget.com/contact.html. Click “mailing list removal request form” at bottom of page. Enter information EXACTLY as printed on envelope.
 - Mail: Send your Val-Pak envelope, marked “Delete” to Val-Pak Direct Marketing Systems 8605 Largo Lakes Drive Largo, FL 33773.
- Money Mailer, LLC
 - Provide your individual request with your mailing address, sign, and mail, email or fax to:
 - Online: <http://moneymailer.com/contact.htm> for email address
 - Call: 714-889-3800
 - Mail: 12131 Western Avenue Garden Grove, CA 92841
 - Fax: 714-889-1590

**CONTROL YOUR EXPOSURE—
LOOK FOR PRIVACY STATEMENTS WHEN
YOU SHOP ONLINE**



A Very Tall Order

Nearly 6 billion credit card solicitations were sent to consumers in 2005.

Source: MarketWatch, April, 2006



4. *Catalog mailers*

- If you still want to receive some catalogs from a retailer, simply ask to only receive those publications.
- You can contact catalog companies individually by looking for their contact information on the catalog
- **Catalog Choice**
This free service that makes it easy for consumers to stop receiving unwanted paper catalogs. The site asks you to register online and identify the catalogs that you are receiving that you would like to decline. Catalog Choice contacts the catalog provider for you, asking that you be removed from that mail list.

The service claims that you should see results in 10 weeks. Merchants are not required to comply with this service, so you may have to end up contacting the business directly.

– Online: www.catalogchoice.org

5. *Individual mailers*

- Not all companies or organizations use the national systems to manage their mailing lists. If you are still getting “junk” from persistent mailers, you can contact the company directly and ask to be placed on their do not mail list. Look at the mail piece to see if there’s a number to call, send them an E-mail, or use their Web site.

6. *Sweepstakes mailers*

Want to stop receiving all of those sweepstakes mailers? Contact the national companies below to remove your information from mailing lists.

- **Publishers Clearinghouse**
101 Winners Circle
Port Washington, NY 11053-4016
– Online: www.pch.com/infocenter/customer-service/faq.shtml
– Call: 1-800-476-4724
- **Readers Digest**
PO Box 50005
Prescott AZ 86301-5005
Phone: 1-800-310-6261

7. *Local utilities and service providers*

- Ask your phone, gas, electric, water, cable, newspaper, banking and insurance providers about their privacy policies. Find out more about what information they will and will not share about you. Most companies will restrict what they share about their customers, but typically they will only do so if specifically asked to.
- Ask that electronic copies of your utility, bank, and credit card statements be sent to you via email. Save them on your computer instead of printing.



IF AVAILABLE, ONLINE OPTIONS FOR DELETION FROM MAILING LISTS ARE AN EASY SOLUTION. BUT BE PATIENT, IT OFTEN TAKES SEVERAL WEEKS FOR YOUR NAME TO BE DELETED.

8. *Minnesota state government: Public data*

- **State licenses**
 - Minnesota law requires that names and addresses of persons or organizations licensed by the state be made available to the public. Specific lists of license holders can be purchased through the Minnesota Bookstore. License holders can opt out of these lists by contacting the Mailing List Service at: 651-296-0930 or www.comm.media.state.mn.us/bookstore/list_service.asp.
- **Motor vehicle data**
 - All personal data will automatically be restricted from any use except those authorized by federal law. Anyone who has no objection to the data being released for commercial or general uses can “opt-in” by indicating consent on their driver’s license or vehicle registration application.

Don’t Have the Time?

These companies will do the work for you for a fee!

www.41pounds.org

www.greendimes.com

9. *U.S. Postal Service: misaddressed mail*

- Check with your local post office for forms to stop these types of mail:
 - Former residents
 - Deceased
 - Sexually explicit



IF 1-800 NUMBERS ARE AVAILABLE: BE PREPARED WHEN YOU CALL. BE PATIENT. BE PERSISTENT. BE POLITE.

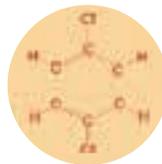
How to reduce toxic chemicals in your home

Chemicals are part of our lives. We treat illnesses, paint our houses, and even clothe ourselves with products that have been developed through chemical research. However, there are reasons to be cautious about our exposure to some chemicals.



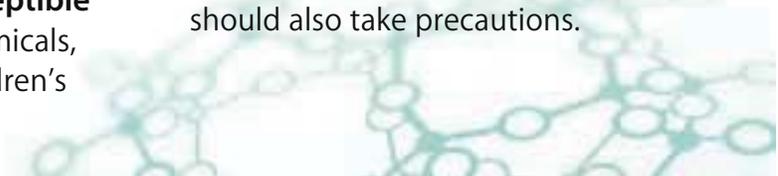
Why reduce toxics?

From the foods we eat to how we maintain our yards and clean our homes, we can be exposed to chemicals in many ways. According to the U.S. Environmental Protection Agency (EPA), only a small fraction of the more than 84,000 registered chemicals have gone through complete testing for human health concerns. Some chemicals have immediate toxic effects. Others are toxic to our bodies only after repeated, long-term exposure.



Children are especially susceptible to the negative effects of chemicals, warns the EPA's Office of Children's

Health Protection. Pound for pound, children breathe more air, drink more water, and eat more food, and when they play, they crawl and put things in their mouths. As a result, children have an increased chance of exposure to potential pollutants, and because children's bodies are still developing, they may process these pollutants differently from adults. Nursing mothers and women who are pregnant, or plan to become pregnant, should also take precautions.





A good principle

to follow is to always look for ways to reduce or eliminate the use of toxic chemicals as we go about our daily lives, in order to keep our homes healthy for our families and pets.



Reducing toxics inside your house

Until recently, indoor air pollution has been largely ignored as a source of exposure to toxicity. But studies have shown that levels of harmful chemicals in indoor air may exceed the standards set by the EPA to protect us from harmful chemicals. You can reduce the problem by using products that are free of toxic chemicals whenever possible.

What you can do

Simple changes in our everyday routines can reduce our long-term exposure to low levels of potentially harmful substances—changes in the products we buy, changes in the way we clean our houses, changes in how we take care of our yard. These changes will not only make our homes safer, they may also save us money.

Choosing the products you buy

Whenever possible, buy products that are free of toxic chemicals. Alternatives are available. The market for nontoxic household products is growing in response to customer demand.

- ▶ When purchasing products, take a minute to carefully read the label. Look for products that appear to disclose all their ingredients. The words "warning," "danger," and "poison" indicate that the product's ingredients are harmful. Choose the least hazardous product to do the job.
- ▶ Before you use a product, carefully read the directions and follow the instructions. Be sure to use the correct amount of a product. Remember, you won't get twice the results by using twice as much.
- ▶ Select products (cleaners, shampoos, etc.) made from plant-based materials, such as citrus, seed, vegetable, or pine oils. By doing so, you are selecting products that are biodegradable and generally less toxic. These products provide the additional benefit of

Become a label reader

Look for key words on labels and choose the least hazardous product.

Less toxic ↑ More toxic	Caution	mild/moderate
	Warning	moderate hazard
	Danger	extremely flammable, corrosive or highly toxic
	Poison	highly toxic

Source: Minnesota Pollution Control Agency

being made from renewable resources. Ask for plant-based products at your local grocery or retail store.

- ▶ Choose pump spray containers instead of aerosols. Pressurized aerosol products often produce a finer mist that is more easily inhaled. Aerosols also put unnecessary volatile organic chemicals into your indoor air when you use them.
- ▶ Ask for unbleached paper products or products bleached with hydrogen peroxide or oxygen, which produce less pollution during papermaking.
- ▶ Look for products with the EPA's Design for the Environment logo to help you find safer choices that won't sacrifice quality or performance.

www.epa.gov/dfc



Ingredients lists don't always tell you everything that is in a product, but they can offer clues to the toxicity.



Using paper bleached without chlorine helps avoid the introduction of dioxin into the environment.

For yourself—bath, beauty, and hygiene products

- ▶ Avoid using antibacterial soaps. Antibacterial agents, while not directly harmful to you, contribute to the growing problem we face when bacteria mutate to strains that are more drug-resistant. Remember, however, that hand washing with any soap is still vital to maintaining good health.
- ▶ Purchase a mercury-free fever thermometer. Many effective alternatives are on the shelves at your local pharmacy. Broken mercury fever thermometers can be a source of toxic mercury levels in your home and discarded products containing mercury contribute to higher levels in the environment. Consult your county household hazardous waste program manager to learn where to take your old thermometer or visit www.pca.state.mn.us/hhw.



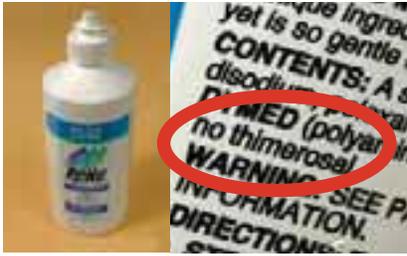
Antibacterial agents tend to promote the growth of antibiotic-resistant bacteria strains.



Older mercury-containing thermometer

New electronic thermometer





Avoid hidden sources of mercury by looking for thimerosal-free products.



Take your shoes off at the door. They bring in lots of toxic pollutants from outside.



By cleaning with products like these, you can save money and avoid exposure to toxic chemicals.

- ▶ Use eye drops, contact lens solutions, and nasal sprays and drops that are free of thimerosal or other mercury-containing preservatives.
- ▶ Look for unscented and natural dyes in products to avoid potential allergic reactions.
- ▶ Recipes for products using natural ingredients, such as baking soda, lemon juice, etc., can be found at www.care2.com. Search under non-toxic cleaning recipes

Keeping your house clean

Remove your shoes when you enter your house. Your shoes can track in harmful amounts of pesticides, lead, cadmium and other chemicals. Keeping a floor mat at your doors for people to wipe their feet on when they enter will also help.

Vacuum carpets and floors regularly. Children playing on your carpet may actually be more exposed to pesticides lodged in the carpet than from the outside, because pesticides break down less readily indoors than outdoors. Use a fine particulate filter, such as a HEPA filter, in your vacuum cleaner, if possible. Otherwise, the dust vacuumed up is redistributed into the air where it can be inhaled.

Single-ingredient, common household materials such as baking soda, vinegar, or plant-based soaps and detergents can often do the job on your carpet or other surfaces. Soap and water have been shown to keep surfaces as free of bacteria as antibacterial soaps do. If your carpet needs professional cleaning, enlist a carpet service that uses less-toxic cleaners that are low in VOCs and irritants.

- ▶ Baking soda works well to clean sinks, tubs and toilets, and it freshens drains as well.
- ▶ Vegetable oil with a little lemon juice will clean wood furniture.
- ▶ Simmer a mixture of cloves and cinnamon or use vinegar and water as a safe and environmentally friendly air freshener.

- ▶ Use vinegar and water in a pump spray bottle for cleaning mirrors and shining chrome. Vinegar or soap and water with drying rags or a squeegee work well for cleaning windows.
- ▶ Use reusable unbleached cotton towels, rags, and non-scratch scrubbing sponges for all-purpose cleaning instead of bleached disposable paper products.
- ▶ Use dishwasher detergents that are free of chlorine bleach and lowest in phosphates.
- ▶ Use bathroom cleaners that are free of aerosol propellants and antibacterial agents.

Watching what you eat

- ▶ Choose organic fruits and vegetables for your family whenever possible. They have been shown to have less pesticide residue.
- ▶ Rinse all fruits and vegetables to remove more of the pesticide residues and to ensure that fertilizer residues have been removed, too.
- ▶ Don't microwave foods in plastic containers. Chemicals from the plastic container can become absorbed by food during microwaving. Cover with waxed paper instead of plastic wrap to keep food from spattering.

Controlling pests

In order to survive, pests need food, water, and living space. Remove all food sources through good sanitation and storage habits (i.e. screw cap jars, zip lock bags, garbage pails with tight fitting lids). Block pest entrances to your kitchen by caulking holes, using door sweeps on the bottom of doors, and keeping window screens in good repair. Avoid placing chemical pesticides around your kitchen to kill indoor insect and rodent pests. For more information on controlling pests without the use of chemical pesticides, go to www.reduce.org/toxics.



Replace toxic chemicals with some elbow grease: abrasive (green) and non-abrasive (blue) sponges, and cotton rags.



When storing winter clothing, use cedar blocks or bags of cedar chips hung with your clothes. Avoid mothballs that contain p-dichloro benzene or naphthalene, which are very toxic and also contribute to respiratory problems. Above: cedar scraps cut from lumber and wrapped in a mesh bag that once contained oranges.



Cleaning up and plugging holes is a good way to keep pests out of your house.



Keep bugs out of the house by first keeping bugs out of your food. Use tightly sealed reusable containers to store your food.



Try simple ingredients like borax, non-chlorine bleach, and washing soda.



Avoid laundry cleaning products with chlorine.



Conventionally dry-cleaned clothes emit a possible carcinogen called perchlorethylene.

- ▶ Avoid using no-pest strips. They contain pesticides that are released to the air in your home.
- ▶ Consult your veterinarian for nontoxic pest control products for use on pet pests such as fleas and ticks.
- ▶ Use nontoxic head lice treatments, including combing, enzyme-based treatments, and mayonnaise or oil. See www.headlice.org for more information.

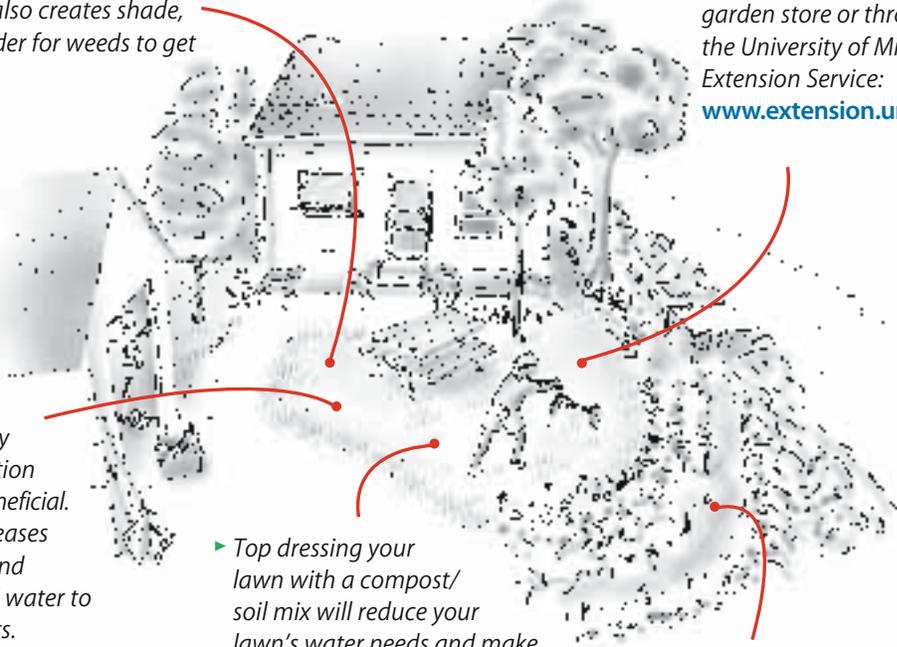
Doing the laundry

- ▶ Instead of more complicated detergents, try using a combination of washing soda and borax in your machine. These are usually as effective as more complex formulas and are also usually cheaper.
- ▶ When possible, hang clothes to dry outside to avoid using the dryer, which uses energy and depletes resources. In winter, fluff the clothes in the dryer, and then hang to dry indoors. You get the added benefit of increased humidity.
- ▶ Avoid bleach when possible. If whitening is needed, use non-chlorine bleach. These oxygen-based bleaches are often highly effective.
- ▶ Buy clothes that don't need dry cleaning, or use an alternative to dry cleaning called "wet cleaning." Clothes that have been dry cleaned emit perchlorethylene, a chemical that is a suspected carcinogen. The wet cleaning process uses water so there are no harmful gases emitted from the cleaned clothing. For a list of cleaners that use the wet cleaning process, go to www.mntap.umn.edu and search for "consumer dry cleaning".



Reducing toxics in the yard

- ▶ Mowing your grass to a height of about 3 1/2 inches is the single most important thing you can do to improve the health of your lawn. By keeping grass length longer, the roots grow deeper and can reach more water during dry periods. Longer grass also creates shade, making it harder for weeds to get established.
- ▶ If you use a lawn service, consider a service provider that uses less toxic alternatives.
- ▶ Test the soil to see what your soil needs. Apply only as much fertilizer as is needed. Soil test kits can be purchased at a lawn and garden store or through the University of Minnesota Extension Service: www.extension.umn.edu.



- ▶ If your grass grows in heavy clay soil, aeration can be very beneficial. Aeration decreases compaction and allows air and water to get to the roots.
- ▶ Top dressing your lawn with a compost/soil mix will reduce your lawn's water needs and make it more resistant to drought and disease. You will need to fertilize less often, and when you do, you can use less fertilizer.
- ▶ Consider replacing parts of your yard with native perennials that lower maintenance and lessen the need for water and chemicals.
- ▶ Ask at your garden store for less toxic alternatives to chemical pesticides to control pests. Weeds such as dandelions can be removed easily by digging them up with a fishtail weeder when the soil is damp.



Fishtail weeder



Weed Hound

Hand- and foot-powered weeding tools.



Phosphorus and Minnesota lawns

Fertilizers, grass clippings, and leaves from lawns contribute to phosphorus in our lakes and rivers. Using lawn fertilizers that do not contain phosphorus (where the middle number is zero) and sweeping up grass clippings from streets and sidewalks are easy ways a homeowner can improve water quality.

Phosphorus ban

Fertilizer containing phosphorus cannot be used on lawns without a soil test that shows it is needed. New lawns and gardening uses are exempt. Minnesota soils are naturally high in phosphorus, so our lawns don't usually need any extra.



Toxic fumes can come from unexpected sources like new carpet and cabinets.



Many products like paints and stains are now available in NO- and low-VOC formulations.



Look for newer types of treated wood that do not contain heavy metals. Or consider naturally rot-resistant woods like cedar.

Building and remodeling

- ▶ When building or remodeling your home, ask for building materials and supplies that have the least amount of formaldehyde and other volatile organic compounds (VOCs), which have been shown to cause cancer or developmental problems.
- ▶ Choose no- and low-VOC paints and varnishes when finishing walls, floors, and furniture. Make sure you have proper ventilation.
- ▶ Ask for carpeting that meets standards for indoor air quality established by the Carpet and Rug Institute (www.carpet-rug.com). Once a carpet is installed, thoroughly air out the house for at least 48 hours.
- ▶ Use reclaimed cedar or redwood, which is naturally resistant to fungus and insects, or use recycled plastic lumber for decks and playground equipment. Ask at your home improvement store for vendors of these materials.
- ▶ Avoid using “green-treated” lumber which is treated with the toxic compound copper chromium arsenate (CCA). Never use it for eating surfaces on picnic tables, children’s play equipment, and never burn the lumber scraps! Clean up all scrap treated wood and sawdust and dispose of it properly.

For more detailed information about reducing your exposure to toxics around your home and for links to other useful websites, go to www.pca.state.mn.us/livinggreen.



Minnesota Pollution Control Agency

Minnesota Pollution Control Agency helps Minnesotans make informed decisions and take actions that conserve resources and prevent pollution and waste to benefit the environment, economy and society.
www.pca.state.mn.us

Reduce Waste *If not you, who?*

BECOMING LESS CHEMICALLY DEPENDENT

Reduce the need for pesticides and herbicides



Pesticides (which includes insecticides, herbicides, and fungicides) are designed to kill weeds, insects, rodents, and mold. These chemicals can be poisonous and can pose a danger to animals and people, especially children. Keeping pests out of your home and yard in the first place eliminates the need for pesticides—and toxic chemicals.

 *In order to survive, pests (both the animal and plant varieties) need food, water, and a place to live.*

In your yard

Keeping your lawn strong and healthy is the best way to care for your lawn without using a lot of pesticides. A strong and healthy lawn will minimize weeds from taking root or insects from causing serious, permanent injury to the lawn. There are several easy steps you can take to maintain a healthy lawn and reduce the need for herbicides.

- **Leave your grass clippings on the lawn.** Grass clippings can provide the equivalent of about one application of fertilizer per year.
- **Use a sharp mower blade** when cutting your lawn to make it less susceptible to disease.
- **Water infrequently, but thoroughly during dry periods** of more than a week or two. Water only about once a week and thoroughly (about 1 inch of water). Avoid watering during strong sun and heat to minimize losses to evaporation. The best time to water is early in the day, before 10 a.m.

- **Test your soil.** Find out what kind of fertilizer, if any, your soil needs. Obtaining a reliable soil test every few years can help you monitor the nutrient needs of your lawn. The University of Minnesota Soil Testing Lab (612-625-3101) charges \$15. Some garden centers also offer testing.



Mow your grass to a height of 2½ to 3 inches.

This is the single most important thing you can do to improve the health of your lawn. By keeping your grass a little longer, the roots grow deeper and can reach more water during dry periods. Longer grass also helps shade the soil surface, making it harder for weeds to get established.

In your home

If you're looking for a way to decrease your use of toxic chemicals in your home, take a look at how you handle unwanted pests. The best method to control pests, such as bugs and rodents, inside your home is to keep them out by cleaning up crumbs and spills quickly. Instead of reaching for a can of toxic spray, grab a broom!



Clean up food spills completely.



Store food in tightly sealed containers.



Caulk cracks and weatherstrip windows and doors to eliminate easy paths of entry. Check your foundation for cracks or spaces.



Plumbing leaks and damp basements can be an essential source of water for insects. Get rid of the moisture, and you could solve your bug problem.

In your yard (continued)

- ▶ **Use fertilizers with zero phosphorus** unless a specific need is determined by a soil test. Phosphorus (the middle number on a fertilizer bag) should be zero. Careless use of phosphorus fertilizers creates runoff which can pollute nearby lakes, streams, and rivers. Phosphorus causes unhealthy levels of weed and algae growth.
- ▶ **Control weeds.** September is the best time of year to treat dandelions, plantain, creeping Charlie, and other perennial broadleaf weeds. Remember the best weed control is a healthy, dense lawn. If the weed invasion seems to be getting worse, find out why the grass is not competitive enough to crowd weeds out. Controlling weeds may be as simple as adjusting your other lawn care practices. Where there are only a limited number of weeds present, consider removing them by hand rather than using an herbicide.
- ▶ **Seed.** The best time to reseed bare spots is either early spring or around the middle of August. If deicing salt from sidewalks or roads has caused dead areas, consider reseeding with a more salt-tolerant variety. Always plant grass varieties that are adapted to our area and are appropriate for the way you use your lawn.
- ▶ **Aerate your lawn** if soil is compacted or there is significant thatch build-up. You can do this by using a lawn aerator available from most rental stores. Use the type that removes small cores of soil from the ground and places them on the lawn surface. Leave the cores to decompose naturally, contributing to a decrease in thatch, while the holes poked into the ground help improve soil aeration for healthier root systems.

These lawn care tips will help you keep your lawn healthy and less susceptible to disease and weed invasion, meaning you will have less need for herbicides and maybe even less fertilizer.



Minnesota Pollution Control Agency

Minnesota Pollution Control Agency helps Minnesotans make informed decisions and take actions that conserve resources and prevent pollution and waste to benefit the environment, economy and society. Visit our web site: www.pca.state.mn.us.

April 2008



Fertilize in the fall. Mid- to late-October is a very good time to fertilize your lawn. At this time of year, fertilizer nutrients, including nitrogen, are taken up and stored in the plant where they help provide for healthy spring growth. Most fertilizers require water after application; follow the instructions on the label to ensure best results.



Muscle-powered weed killers

If you have a smaller lawn, weeds can often be managed with mechanical tools. Weeds such as dandelions can be removed easily by digging them up with a fish-tail weeder (right) when the soil is damp. For those who would rather stay off their knees, there are upright pullers such as the Weed Hound™ (left).



For more information about pest and weed control

The **Northwest Coalition for Alternatives to Pesticides** has many free resources on non-toxic pest management, including fact sheets on specific chemicals and alternatives for many kinds of pests at www.pesticide.org/factsheets.html.

The Gardener's Guide to Common Sense Pest Control, by William Olkowski, Taunton Press, 1996.

U.S. Environmental Protection Agency **Pesticide Environmental Stewardship Program** for reduction of pesticide use is found at www.epa.gov/pesticides/.

The **Washington Toxics Coalition** has alternative pest control fact sheets on its web site at www.watoxics.org.

Recent studies on the human health and environmental effects of pesticides

The **Center for Disease Control's** report provides an ongoing assessment of the exposure of the U.S. population to chemicals (including pesticides): www.cdc.gov/exposurereport/.

Pesticide Action Network North America (PANNA) resource page contains reports, studies (use search words "scientific studies"), and a pesticide database at www.panna.org/resources/resources.html.

The Environmental Protection Agency's **Office of Children's Health Protection** has information about environmental health threats to children at <http://yosemite.epa.gov/ochp/ochpweb.nsf/homepage>.

Visit www.reduce.org for lots of ideas about reducing waste and toxic chemicals in your day-to-day life.

reduce.org

Household hazardous waste Disposal guide



Don't throw this stuff in the trash.

All of it poses a threat to people or the environment—or both—if not disposed of properly. Most of these items can be dropped off at your local *household hazardous waste facility* (see info on back). Call about disposal options for the rest.



Household Items

Aerosol products*
 Drain cleaners
 Fire extinguishers
 Mothballs
 Nail polish/remover
 Oven cleaner
 Polish with solvents
 Spot removers
 Thermometers (mercury)

Call for local disposal options

Button batteries
 Batteries (rechargeable)

Electronics
 Fluorescent lights
 Syringes/sharps

* Note:

Empty containers, including aerosols, can be disposed of in the trash or be recycled.



Automotive

Brake and Transmission Fluid
 Carburetor cleaner
 Degreasers
 Fuels
 Gasoline

Call for local disposal options

Auto batteries
 Oil filters

Antifreeze
 Motor oil

Home Improvement

Concrete cleaner
 Driveway sealer
 Furniture stripper
 Glue with solvents
 Oil-based paint
 Paint remover
 Paint thinner

(Whenever possible dry out waste latex paint and dispose in trash)



Household Items

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 Drain cleaners
 Fire extinguishers
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 Nail polish/remover
 Oven cleaner
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Household Items

Brake and Transmission Fluid
 Carburetor cleaner
 Degreasers
 Fuels
 Gasoline

Call for local disposal options

Auto batteries
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Home Improvement

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Household hazardous waste Disposal guide



Don't throw this stuff in the trash.

All of it poses a threat to people or the environment—or both—if not disposed of properly. Most of these items can be dropped off at your local *household hazardous waste facility* (see info on back). Call about disposal options for the rest.



Automotive

Brake and Transmission Fluid
 Carburetor cleaner
 Degreasers
 Fuels
 Gasoline

Call for local disposal options

Auto batteries
 Oil filters

Antifreeze
 Motor oil

Home Improvement

Concrete cleaner
 Driveway sealer
 Furniture stripper
 Glue with solvents
 Oil-based paint
 Paint remover
 Paint thinner

(Whenever possible dry out waste latex paint and dispose in trash)



Lawn and Garden

Bug spray
 Charcoal lighter fluid
 Fertilizer with weed killer
 Insect killer
 Pool chemicals
 Roach/ant killer
 Rodent bait
 Weed killer

7-County Metro Area -

Household hazardous waste dropoff facilities

County	HHW facility location
Anoka www.AnokaCounty.us/recycle 763-323-5730	3230 101 st Ave NE Blaine, MN 55449
Carver www.co.carver.mn.us/departments/lws/env-svc/index.asp 952-361-1800	116 Peavey Circle Chaska, MN 55318
Dakota www.co.dakota.mn.us/environmentroads/recyclingzone/default.htm 952-891-7557	3365 S. Hwy 149 Eagan, MN 55123
Hennepin www.hennepin.us/dropoffs 612-348-3777	▶ 1400 West 96 th St. Bloomington, MN 55431 ▶ 8100 Jefferson Hwy Brooklyn Park, MN 55445
Ramsey www.co.ramsey.mn.us/home/index.htm 651-633-3279	Bay West 5 Empire Dr. St. Paul, MN 55103
Scott www.co.scott.mn.us/hhw 952-496-8475	588 Country Trail E Hwy 282 Jordan, MN 55352
Washington www.co.washington.mn.us/envirocenter 651-430-6655	4039 Cottage Grove Drive Woodbury, MN 55129



Minnesota Pollution Control Agency

www.pca.state.mn.us/hhw

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Minnesota Pollution Control Agency

www.pca.state.mn.us/hhw

**If you're
burning
garbage,
you're
making
poison.**

*"We've been
doing it for
generations,
so what's the
big deal now?"*

Burning garbage in your backyard—whether done in a traditional burn barrel, wood stove, fire-pit, or at the cabin—is far more harmful to your, health, our health, and the environment than previously thought.

Backyard garbage burning can affect your health

Garbage has changed

Until a few decades ago, burning garbage in the backyard was much less dangerous to your health. Fifty years ago, most household garbage contained only untreated paper, wood, and glass. Today's garbage contains paper, plastics, and other types of packaging waste that release a hazardous mixture of carcinogens and other toxics (such as lead, mercury, and arsenic) when burned. Even seemingly harmless items, like paper, mail, packaging, and cardboard boxes used for frozen pizzas and vegetables, can give off toxic emissions.

Smoke

Pollution created by backyard garbage burning increases the health risk to those exposed directly to the smoke, which is an irritant that especially affects people with sensitive respiratory systems, as well as children and the elderly. Exposure to smoke can also increase the risk of heart disease, cause rashes, nausea, and headaches.

Dioxin

But the health concerns go well beyond those who are directly exposed—to those indirectly exposed to these toxic chemicals through their food. Among the health risks posed by backyard burning, dioxin—a known, potent human carcinogen and endocrine disrupter—is the main concern. Dioxin can have significant impacts on human immune, developmental, and reproductive systems. Dioxin exposure is especially harmful for children, pregnant women, and the elderly.

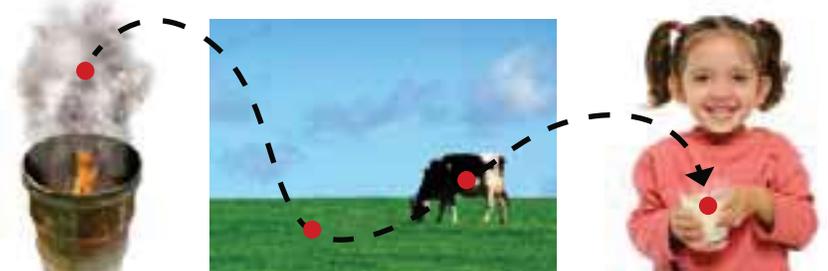
In Minnesota, dioxin is of particular concern since a recent survey shows that 45 percent of rural Minnesota residents still burn their garbage (*see our website*). Because burn barrels are more common in the rural, agricultural areas of the state, there is particular concern about high levels of dioxin settling on crops and in

our streams and lakes—and eventually winding up in the food we eat. Dioxin produced by backyard burning is deposited on plants, which in turn are eaten by animals. When people eat meat and dairy products, the dioxin is also absorbed. In fact, over 90 percent of all human dioxin uptake comes from meat and dairy consumption.

The EPA has been conducting exhaustive studies of dioxins for years. The good news is that as we've reduced the amount of dioxin in the environment, we've seen a corresponding reduction in the average level of dioxins in humans—from an average of 55 parts per trillion (ppt) in the 1980s to 25 ppt by the 1990s. The bad news, however, is that further studies show that health effects are detected at levels below 1 ppt.

An example of how dioxin in the smoke from burning garbage can end up in our food. When livestock eat feed that has been contaminated with dioxin, they concentrate the chemical in their milk and meat.

Dioxin and our food

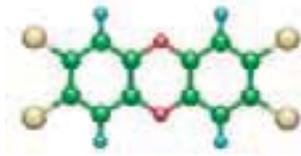


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www.pca.state.mn.us/burnbarrel

The arguments for reducing backyard burning are clear

- Largest remaining source of dioxin, a potent carcinogen, as well as other health and environmental risks.



- Nearly 45% of rural Minnesotans and an estimated 20 million Americans still burn their garbage on-site.



- Proximity to animal feed and food crops creates a serious risk to our food supply.



- Backyard burning contributes to nearly half of all wildfires in Minnesota each year.



Reduction efforts in Minnesota

In Minnesota, open burning of household garbage is banned, with the exception of farms where regularly scheduled pick up of waste is not "reasonably available to the resident" (Minn. Stat. §§ 17.135 and 88.171). However, 28 of Minnesota's 87 counties have passed no-burn/bury resolutions to close this exemption.

Statewide, the MPCA is working on the first phase of its Burn Barrel Reduction Campaign, a multi-year effort to reduce backyard garbage burning throughout Minnesota. Based on recommendations to the Legislature in the 2005 Solid Waste Policy Report, the MPCA will work to eliminate burn barrels by 2010.

Partnerships with state and local government. The MPCA has also worked with counties, local units of government, haulers, and rural residents on programs designed to reduce the use and prevalence of burn barrels and backyard burning through education, incentives, enforcement, and infrastructure development. Many counties like Houston, Otter Tail, Carver, Chisago, Crow Wing, St. Louis, and the Western Lake Superior Sanitary District have seen significant reductions in burn barrel use as a result of programs developed in partnership with neighboring counties, the MPCA, and DNR. Many other counties are also concerned about backyard garbage burning; 24 counties were being awarded burn barrel reduction grants in northeast, southwest, and east central Minnesota in 2007 with more projects expected to begin throughout 2007 and 2008.

Did you know?



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The U.S. EPA estimates that one burn barrel (from an average family of four) can produce as much or more dioxin as a full-scale municipal waste incinerator burning 200 tons per day.

Burning garbage in burn barrels or fire pits creates low-temperature fires (less than 2,200° F), which receive very little oxygen and produce a lot of smoke. Under these conditions, a variety of toxic substances are produced and then released directly into the air without being treated or filtered.

Local governments leading the way

Chisago County reduced the number of residents who use burn barrels by 40 percent in four years after passing a no-burn resolution and conducting an education and incentive program called the Burn Barrel Buy-Back Campaign (4Bs). In a joint effort with local haulers, this program offered six months of garbage service at half price to residents who turned in their old burn barrels and signed up for garbage service. The haulers collected residents' old burn barrels and ash and disposed of them at no charge. This had the added benefit of increasing the number of customers for local haulers; and after a short time, the haulers were actively promoting the program to residents. This project was funded by a grant with the MPCA, and MPCA staff worked hand-in-hand with the county to develop the program.

Other local governments are using various education and reduction programs along with parts of Chisago's 4Bs program. Crow Wing and St. Louis have both conducted education campaigns through billboard displays, and St. Louis is in the process of measuring the impact on the number of people who no longer use burn barrels. With its successful Bernie the Burn Barrel TV ads, WLSSD has continued its education campaign, hosted a well-attended workshop for elected officials on burn barrels, and worked with the MPCA to update *Clearing the Air: Tools for Reducing Residential Garbage Burning*, a resource for Minnesota local governments.



For more about the dangers of burning or how to get involved in the campaign

www.pca.state.mn.us/burnbarrel

651-296-6300 | 800-657-3864



Minnesota Pollution Control Agency

Non-Toxic Cleaning Recipes

Basic supplies:

- Baking soda
- Bon Ami cleanser
- Borax
- Lemon or lime juice
- Liquid dish soap
- Vegetable oil
- Washing soda
- White vinegar
- Non-scratch scrubber sponge



DO:

- Read and follow all label directions on all products you purchase.
- Label all containers with ingredients, intended use, and date made.
- Keep all containers out of children's reach.
- Keep all containers closed when not in use.
- Use only non-chlorine bleach if you feel you must use a bleach product. Use it by itself.
- Control pests by eliminating their food, water, and access.

DON'T:

- Don't use food or beverage containers for cleaning chemicals of any type.
- Avoid using bleach and ammonia. **Never** mix these products with each other—or with any other product.
- Avoid using chemical pesticides.

All-purpose cleaner:

- 1/4 cup white vinegar
- 2 tsp. borax
- 3 1/2 cups hot water
- 20 drops lemon or lavender essential oil
- 1/4 cup liquid dish soap

In a 32-oz. spray bottle, mix the vinegar, borax, and water thoroughly. Add essential oil if desired. Add dish soap last.

Floor cleaner

- 1/8 cup liquid soap
- 1/4 to 1/2 cup white vinegar or lemon juice
- 1/2 cup herb tea (Peppermint has antibacterial qualities.)

Combine ingredients in pail with 3 gallons of warm water. Swirl until it is sudsy. Rinse with 1 cup of vinegar in 3 gallons of cool water.

Wood floor cleaner

Use 1/2 cup vinegar per gallon of water. Wipe dry.

Wood cleaner

- 1/4 cup white vinegar
- 1/4 cup water
- 1/2 teaspoon liquid soap
- a few drops olive oil

Combine the ingredients in a bowl, saturate a sponge with the mixture, squeeze out the excess, and wash surfaces. The smell of vinegar will dissipate in a few hours.

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Furniture polish

- 1/2 teaspoon olive oil
- 1/4 cup vinegar or lemon juice

Mix the ingredients in a glass jar. Dab a soft rag into the solution and wipe onto wood surfaces.

Carpet spot remover

Blot immediately. Sprinkle with baking soda, cornstarch, or borax and let dry. Wash with club soda and vacuum.

Window cleaner

- 1/4 cup white vinegar
- 1/2 teaspoon liquid soap or detergent
- 2 cups water

Combine the ingredients in a spray bottle, and shake to blend.

Oven cleaner

- 1 cup or more baking soda
- a squirt or two of liquid soap

Sprinkle water generously over bottom of oven, then cover the grime with enough baking soda so surface is totally white. Sprinkle more water over top. Let sit overnight. Wipe up the grease the next morning; then with a bit of liquid soap on a damp sponge, wash remaining residue from the oven.

Soft scrubber; Basin, tub and tile

- 1/2 cup baking soda
- enough liquid soap or detergent, to make frosting-like consistency
- 5 to 10 drops antibacterial essential oil, such as lavender (optional)

Place baking soda in bowl; slowly pour in liquid soap, stirring continually. Add essential oil. Scoop mixture onto sponge, wash surface, and rinse. (Bon Ami is another option.)

Rust remover for sinks and tubs

Sprinkle a little bit of salt on the rust, squeeze a lime over the salt until it is nicely soaked in lime juice. Leave the mixture on for two or three hours. Use the leftover rind as a handy scrubber. Rust is gone.

Unclog and deodorize drains

Sprinkle a generous amount of baking soda in and around the drain opening. Follow with a cup of white vinegar. Repeat if needed, and finally flush with very hot water.

Toilet bowl cleaner

Use Bon Ami cleanser with a non-scratching scrubber sponge.

Bacteria, mold, and germs

A straight 5% solution of vinegar – such as you buy in the supermarket – is effective for eliminating harmful bacteria, mold, and germs. Keep a spray bottle of vinegar in your kitchen and in your bathroom.

Borax, non-chlorine bleach, and washing soda can be used by themselves as household cleaners and laundry products in accordance with label directions. They can also be mixed with certain other products for certain uses. All of these products are harmful if swallowed. Washing soda **is not** the same as baking soda and should not be used in place of baking soda.

For additional recipes, www.care2.com and www.thegreenguide.com.



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How to compost your organic waste

Home composting is an easy way to turn much of the waste from your yard and kitchen into a rich material that you can use to improve your soil.

Composting: Break it down

1.



Make a compost bin — or buy one.

2.

Throw in your kitchen scraps and yard waste.



3.



Mix it up with a shovel or pitchfork once in a while.

[More details on back](#)



Why compost?

Home composting is a way for you to speed up the natural process of decomposition and return organic materials to the soil. Yard trimmings and food scraps make up nearly 1/6 of what the average household throws into the garbage.

Why throw this stuff away when it could be used in your yard and garden? By composting, you can convert organic wastes — yard trimmings, leaves and many kinds of kitchen scraps — into a dark, crumbly mixture that can be used to improve the soil and reduce your use of fertilizer and water.

Composting Biology 101

Like a simple recipe, your compost pile needs the right mix of ingredients in order to produce the best results. The key materials are nitrogen-rich “greens,” carbon-rich “browns,” water, and air.

Greens provide nitrogen, and act as a source of protein for the microbes. Examples of greens are green leaves, coffee grounds, tea bags, plant trimmings, raw fruit and vegetable scraps, and grass clippings.

Browns are a source of carbon, and provide energy for the microbes. Examples of browns are straw, sawdust, twigs, dried grasses, weeds and leaves, and shredded newspaper.

Like all living things, the microbes in your compost pile need water and air to live. Water allows the microbes in your compost pile to grow and travel around in the pile to decompose materials. Turning your pile each week with a spade or pitchfork will provide air to aid decomposition and control odors.



Greens



Browns

1

Begin with the bin

Location, location, location. Pick a spot in your yard that's at least partially shaded and at least 2 feet from a structure like your house or a fence. Other considerations:

- ▶ Convenient for you to add materials
- ▶ Access to water
- ▶ Good drainage
- ▶ Local laws might restrict where or what you can compost. Contact your city or county solid waste office.

Containers. You can compost in a simple pile, but using a container or bin helps your compost pile retain heat and moisture and look neat. To get started, it's easy to go with a single-bin system. As materials are added and mixed together, the finished compost settles to the bottom of the bin.

Materials. Bins can be built from scrap lumber, old pallets, snow fence, chicken wire, or concrete blocks. Typically, several types of composting bins are sold at hardware or lawn and garden stores.



Chicken wire (or hardware cloth) and old wooden pallets make the basis for two easy-to-build compost bins.



2

Adding the first materials

Lay a base. Start with a layer of browns, laying down 4 to 6 inches of twigs or other coarse carbons on the bottom of the pile for good air circulation.

Alternate greens and browns. Add layers of nitrogen and carbon materials. Make layers about 4 to 6 inches thick. Once you turn the pile the first time, these materials will get mixed together and compost more efficiently.

Water as you go. Your compost pile should be moist, kind of like a wrung-out sponge. Squeeze a handful of compost; if small beads of water appear between your fingers, you have enough water.

Your pile will get water from rain, as well as the moisture in the greens. If the pile gets too wet, you can turn it more frequently to dry it, or add more dry brown materials to soak up the excess moisture.

3

Turn it, turn it, turn it

Once you build your pile, the *real* composters get to work — bacteria, fungi, and insects help break down the materials in your compost bin. As the organic materials decompose, your pile will get hot on the inside and you might see some steam. In about a week, your compost will be ready for turning.

Use a pitchfork or shovel to mix up the layers of green and brown and move materials toward the center of the pile. You can empty your bin and re-layer, or just work materials around inside the bin. Break up clumps of material and wet the pile as needed.



Repeat until it's complete.

The composting process can be pretty quick in the summer months. Your compost pile may no longer heat up after just a few weeks. Look in your pile for finished compost — material that is dark and crumbly, fresh-smelling, and no longer looks like what you originally put into your bin.

Using finished compost

- ▶ Mix in compost to improve soil. In sandy soils, compost acts like a sponge, retaining water and nutrients where it can be

reached by plant roots. In clay soils, compost makes the ground more porous, creating tiny holes and passageways that help soil drain more quickly.

- ▶ Spread compost on your lawn to help fill in low spots.
- ▶ Use as a mulch for landscaping and garden plants. Mulches cover the soil around plants, protecting the soil from erosion and the drying effects of wind and sun.
- ▶ Mix compost into pots for potted plants.



Common problems & solutions

The pile doesn't heat up.

If the pile is new, you may need to add more "green" to your pile. No heat could also signal a need to wet the pile.

If your pile is old, and you've turned it a few times, you may already have finished compost.

There's an odor of ammonia.

If the pile is too wet, turn the pile with a shovel or pitchfork to let in air and mix it up.

Add "brown" to your compost pile. Ammonia odors often indicate too much "green."

The pile is attracting scavengers like raccoons and mice.

Add no food wastes with oils, meats or dairy. The odors from these can attract pests. Keep other food wastes covered and in the middle of the pile. Covering the bin might help.



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800-877-6300
www.pca.state.mn.us

Visit reduce.org for more information on composting, including tutorials, plans for building your own compost bin, and links to composting web sites.

Diagnosing common backyard composting problems

Check for moisture

One of the most common reasons a backyard compost pile works slowly or even stops composting is lack of moisture.

The easiest way to check for proper moisture conditions in your compost bin is to randomly grab a handful of composting materials from the pile or bin. Make a fist with your hand and squeeze. One of three things will happen:

- ▶ You have **water running** between your fingers. The material is too moist, and you need to turn the pile until it dries out.
- ▶ You have **beads of moisture** form between your fingers. The moisture level is just right. No additional care is needed.
- ▶ You have **no moisture** between your fingers. You need to add water.

Mix the pile well and repeat the fist test as necessary. This is not recommended if your feedstock is manures or contains food scraps.

Does your compost pile smell?
Does it take forever to break down?
Here are some solutions to these and other common backyard composting problems.



Recipes

Backyard composting is most appropriate for those who have a large quantity of organic material—typically yard wastes or fruit and vegetable scraps from the kitchen—and have a space outside large enough to accommodate the volume.

Like any simple recipe, you'll get the best results if you use the right mix of ingredients to make your compost. The key materials are nitrogen-rich "greens," carbon-rich "browns," water, and air.



Yard waste only

- 3 parts dry leaves
- 2 parts fresh grass clippings

Yard and kitchen waste

- 3 parts dry leaves
- 1 part fresh grass clippings
- 1 part food scraps

Common Backyard Compost Problems

Symptom	Problem	Solution
Rotten egg smell	Not enough air due to compaction	Turn pile to fluff up and create air pockets. If particle size is small (under one inch), add a bulking agent such as wood chips about 2" in size.
	Excessive moisture: During fist test, if water drips or runs out of your hand, the pile is too wet.	Turn pile to add air and dry out pile. Wood chips or some other bulking agent could be added to increase air space.
Ammonia smell	Excess nitrogen (grass clippings, food waste, fertilizer)	Add more carbon materials (leaves, non-recyclable paper, straw).
Pile doesn't heat up	Pile too small	In order to get the compost pile hot, it must be a minimum of 3' high by 3' in circumference.
	Pile too dry— the most common problem. Using the fist test, if you do not see beads of water between your fingers, the pile is too dry	Turn pile to mix materials. While turning the pile, add water with a hose or watering container. You should let the pile rest for several hours, then give it the fist test again. If beads of water do not form between your fingers, the pile is still too dry and more water is needed.
	Lack of nitrogen	Add materials containing nitrogen (grass clippings, food) or a plant fertilizer high in nitrogen.
	Poor aeration	Turn pile. Course materials, such as wood chips, may also be added to create air spaces in the pile.
	Cold weather	If the compost pile is small, it may not be able to heat up in areas that have very cold climates.
	Compost is finished	When appropriate, begin using finished compost in garden.
Attracts rodents or other animals	Inappropriate materials	Materials such as meats, oils, fat, foods cooked in oils or fats, bones, and dairy should not be added to the compost pile.
	Kitchen food scraps too close to surface of pile	Bury kitchen scraps beneath several inches of high-carbon materials (leaves, straw, wood chips).
Attracts insects, millipedes, slugs, etc.	This is normal	To minimize insect problem, turn the outside edges of the pile into the center and make sure the pile heats up. This will kill the eggs laid by the insects and reduce the nuisance insects.

Resources

Backyard Composting Tutorial (Sarasota County, Florida): excellent 20-minute tutorial that teaches you the details about composting; www.compostinfo.com

Backyard Composting: Stewardship Gardening, a service of Washington State University. <http://gardening.wsu.edu>

U.S. Composting Council: Links to composting resources of all kinds. www.compostingcouncil.org

University of Minnesota Extension, *Composting and Mulching: A Guide to Managing Organic Yard Waste*. www.extension.umn.edu

Earth Kind: Environmental Stewardship Program through Texas Cooperative Extension, Don't Bag It Leaf Management. <http://earthkind.tamu.edu/EKHome.html>

Cornell Waste Management Institute: Small Scale or Backyard Composting. <http://cwmi.css.cornell.edu>

Compost Guide: A Complete Guide to Composting. www.compostguide.com

Backyard Compost (New Mexico State University, College of Agriculture and Home Economics). http://cahe.nmsu.edu/pubs/_h/H-110.pdf

Minnesota Pollution Control Agency

800-877-6300
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Compost your food scraps indoors

Use red wiggler worms to recycle food waste indoors with minimal space and no bad odor.

- Red wiggler worms are very effective at composting kitchen food scraps. They reproduce quickly and are easy to maintain.
- They are perfect for homes, townhomes and apartment dwellers because they take up little space.
- Use the nutrient rich worm compost, or castings, on your plants and in your garden.

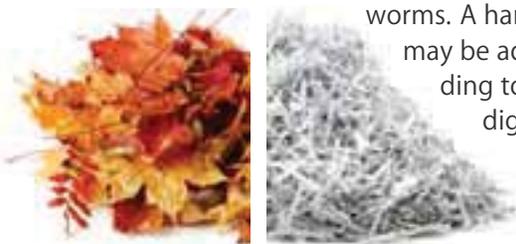
Set up your bin

A bin specially designed for vermiculture can be purchased online, or you can make your own.

Make your own bin: Purchase two opaque nesting storage bins, approximately eight inches deep by 16 inches wide by two feet long. Drill holes in the bottom of the inside bin, using a 1/4 to 3/8 inch drill bit. This allows liquids (worm juice) generated in the composting process to drip into the bottom bin. Drill air holes in the lid of the top container or along the sides of the inside container about one inch above the bottom bin.



Bedding: Common materials are: peat moss, shredded paper or newspaper, and leaves. Don't use paper with colored inks—it may contain toxic metals. A mix of bedding materials will provide a richer source of nutrition for the worms. A handful of dirt or sand may be added to the bedding to help the worm's digestion.



Worms like dark, moist conditions. Dampen the bedding by adding water a little at a time. Check the moisture of the bedding by taking a handful of material in your fist and squeeze; you shouldn't be able to squeeze out more than a drop or two of water. If bedding becomes too wet, you may experience odor problems. Add dry paper to soak up excess water. Keeping the bedding damp provides good living conditions for the red wigglers and prevent pests.

How many worms do you need?

For every half-pound of food you collect, you need one pound of worms. To save money you can purchase one pound of red worms (*Eisenia fetida*), begin feeding one-half pound of food per week and gradually increase the amount of food you put into the bin. The worms will increase in number to match the amount of food put into the bin.

Where to purchase red worms (*Eisenia fetida*)

- www.wormwoman.com
- www.redwigglerworms.com
- www.workingworms.com
- www.gardenworms.com



Add food waste and worms

Collect food scraps three or four days before you are ready to begin worm composting. This gives the food time to start to decompose so the worms will be able to eat it quicker. Store scraps in a sealed container to avoid attracting flies or pests. Refrigerate if needed.



Add food waste and worms: Dig a hole in the bedding with a hand trowel or rake, place the food then the worms in the hole and cover with bedding

Acceptable materials

- uncooked fruit, grain, or vegetables
- coffee grounds and tea bags (not too much)

Materials to avoid

- meat, fish and other animal products
- dairy products
- egg shells
- greasy or fried foods
- pet waste

Care and feeding of your worms

Place the bin in an area where the temperature stays between 50 to 75 degrees F. They will not survive winter temperatures, so an unheated garage or outside will not work. The closet, under the kitchen sink, or basement are perfect locations for the bin.

Each time you feed the worms create a different hole. The worms will migrate to the food.

Worms do not like to be disturbed, so add food scraps to the bin once or twice a week.

Tips for taking care of your worms

- Only add enough food for the worms to eat. Overfeeding may cause odors or fruit flies.
- Cutting up the food scraps will speed up the process (not too much).
- Fluff up the soil to make sure it doesn't get too compacted—it will maximize air exchange and movement for the red wigglers.

Harvesting the worm compost (castings) and liquid

Worms work quickly. In two to four months, you should notice a build-up of dark, rich material, or castings. Around six months, you will need to harvest the worm castings.

Harvest castings by shifting everything in the bin to one side. Place new bedding on the other side and bury food in the new bedding. Continue to feed the worms only on this side.

In about two weeks, the worms will have migrated to the new side.

Collect the castings from the other side and add bedding. Continue harvesting one side at a time.

A silty liquid will collect in your bottom bin after a while.

Use a piece of cheese cloth to strain out the silty materials. Reserve the liquid in a container and mark the container clearly.



Using the worm castings and juice

Use the castings to top-dress indoor or outdoor plants or as part of a mix for potted plants. Worm castings are a potent source of nutrients for your plants—use them sparingly, about one handful of worm castings to ten handfuls of soil.

Top-dress the silty material on indoor and outdoor plants.

The remaining liquid, or “worm juice,” is a strong fertilizer that should be diluted 20:1 prior to use. The liquid may be used to water your garden, indoor or outdoor plants,

flowers, shrubs or trees. Worm juice may have anti-fungal properties that can prevent fungal diseases, such as black spot, when sprayed on plant foliage.





If not you, who?

How to grow a healthy, no-waste Lawn & Garden



Caring for all the green and growing things in your yard can have a big effect on how much waste your household creates. From grass trimmings and leaves to pesticides and water, the eco-impact of your lawn and garden can be significant. But it doesn't have to be.

Your lawn and garden's effect on the environment

Lawns and gardens can create a lot of waste and pollution. Organic material, which includes lawn clippings, leaves, and food waste accounts for a significant portion of waste that cities need to manage. Collection and processing takes energy and money. (Yard waste has been banned from landfills in Minnesota since 1992.)

Fertilizers with high phosphorus and nitrogen levels can pollute local watersheds and degrade nearby lakes, streams, wetlands, and rivers. Excess phosphorus and nitrogen promote too much weed and algae growth, choking out fish life and reducing water clarity.

Homeowners — and not farmers — are the biggest consumers of pesticides and herbicides. When overused or misapplied, these chemicals can pose serious risks to animals and people, especially children. They can also kill beneficial earthworms and organisms, disrupting the ecological balance of your lawn.

What can I do?

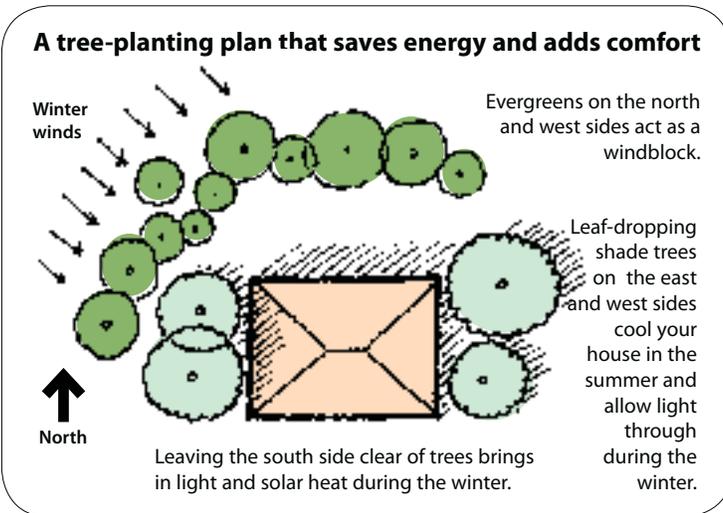
A healthy lawn and garden is the best way to combat weeds and pests. Over-dependence on fertilizers and pesticides may be a symptom of an underlying problem in your lawn and garden.

Growing plants that are appropriate for your soil type, amount of rainfall, and sun exposure greatly decreases the need for fertilizers and pesticides. Native plants often require less water, fertilizer, and pesticides.

Also consider growing plants that can provide habitat, food, water, and shelter to birds and other wildlife.

Planting trees

Your landscaping can also affect your home's energy use. For example, planting shade trees on the east and west sides of the house will keep your home cooler in the summer. Planting a windscreen of evergreens on the northwest side of the house will block winter winds, keeping your home warmer in the winter.



Compost yard waste and other organics

Composting is nature's way of recycling. Organic materials such as leaves and grass are broken down by bacteria and other organisms to provide nutrients and structure to the soil. Composting provides a free soil amendment that you can use to keep your lawn and garden healthy.

How to: Composting can be done in a free-standing pile or a container—homemade or store-bought—which can be made from wire, bricks, or wood. It should be at least three feet deep and three feet in diameter. Add equal parts of carbon (brown materials) and nitrogen (green materials) to your bin. Brown materials can be leaves, straw, cornstalks and sawdust. Green materials can be grass clippings, fruit and vegetable scraps, and trimmings from your garden. Turn your compost frequently to get the pile to decompose quickly and with little odor. Do not add meat, fats, oils, dairy products, or pet feces. Keep your compost moist, like a damp sponge.

Tips for a no-waste lawn & garden

Mow, fertilize, water, and rake less

You don't have to spend so much time maintaining your lawn. Sound incredible? Mowing your yard less, watering it less, fertilizing it less, raking it less, and using no pesticides may be your way to a healthy, environmentally friendly lawn.

- ▶ Mow only enough to keep your grass length to 2½-3 inches high. Mowing your grass to the proper height is the single most important thing you can do to improve the health of your lawn. When you mow, don't rake clippings — leave them on the lawn instead. However, be sure to sweep up your sidewalk, driveway, or street so clippings don't pollute nearby lakes or streams.
- ▶ Get your soil tested to determine the right mix of fertilizer for your lawn. You may need less than you think.
- ▶ Water only when it hasn't rained for seven days and only water in the early morning hours before 10 a.m. Grasses naturally grow slower in the summer so brown grass usually means it's just dormant, not dead.
- ▶ A weed-free lawn is not necessarily a healthy lawn. Weeds can tell you something about what's wrong with your lawn. Identifying your weeds and

treating them accordingly can strengthen the health of your lawn.

Benefits: Take time today to figure out exactly what your lawn needs to keep healthy. This will decrease the amount of time and money you will have to spend caring for it tomorrow. By keeping your grass length longer, the roots of your grass are deeper and can reach more water during dry periods making it less necessary to water. Longer grass also creates more shade and makes it harder for weeds to get established. By leaving your clippings on the lawn, you will fertilize your grass throughout the summer. Controlling weeds by interrupting the cycle of seed production (either by digging them up or cutting off flowering stalks) makes it harder for them to get established in your lawn.



Get your soil tested

All soils are not created equal. Find out what your lawn needs before applying "just any old" fertilizer.

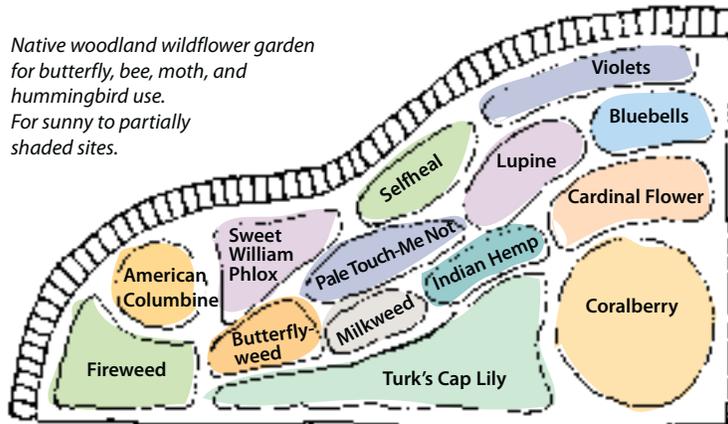
1. Call the University of Minnesota Extension Service at 612-625-3101.
2. Tell them you want to have your soil tested.
3. They will mail you a form to fill out and a bag for the soil sample.
4. You collect the soil sample and mail it to St. Paul along with the form and payment (a regular soil test is \$15).
5. The results are mailed back to you in about 10 days.

The Extension Service also gets a copy so that they can help you interpret them.

Source: University of Minnesota Extension Service.



Benefits: Backyard composting reduces the amount of waste you create in your yard and kitchen by converting it into a useable soil amendment. Composting saves you time — no more bagging and hauling leaves and grass clippings to the county compost site, or paying your garbage hauler to pick up your yard waste. In Minnesota, it is illegal to mix your yard waste with trash. Adding compost to the soil increases its organic matter, which in turn enhances the soil's ability to hold nutrients and water. Using compost in your lawn and garden reduces dependence on fertilizers. Compost can also make good mulch for new plants.



Source: Minnesota DNR

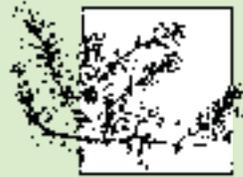
Garden and landscape to encourage wildlife and shade

Your garden and landscape can provide habitat for birds and butterflies as well as save energy. When you plant the right plants given your site, soil type and rainfall, you reduce the amount of pesticides, fertilizer, and water used in your garden. Native Minnesota plants often require less water and fertilizer. The types and location of trees in your yard can reduce heating and cooling costs.

What your weeds are telling you.



▶ **Plantain** may indicate the soil is compacted or poorly drained.



▶ **Creeping Charlie** may indicate the site is too shady or the soil is poorly drained.



▶ **Hawkweed** may indicate that the soil is low in nutrients.



▶ **Dandelions** may indicate that the grass is too thin.



▶ **Moss** may indicate that the site is too shady or too wet for grass to survive.

Source: The Green Thumb Project sponsored by the Western Lake Superior Sanitary District Zero Discharge Project.

Examples: Get to know your garden site. For example, how long is it exposed to sunlight? What is the soil type? Does the soil hold moisture? What will you keep and what will you take out? How will your plants influence wild native plants, or be influenced by nearby weedy exotics? Once you've answered these questions, you can plant your garden and landscaping to fit your needs and budget. When planting native plants, remember that

continued on back

your garden may take a few years to establish since these plants tend to grow slower.

You can save energy in your home by planting trees for shade on the west and east windows, avoiding trees

south of windows. Plant shorter, denser trees, such as firs, to create wind breaks.

Greener Growing

Integrated pest management (IPM) is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment.

Source: University of California Statewide Integrated Pest Management Project

Benefits: Healthy plants in your garden and landscape create less waste and need less chemicals and water. Planting plants that are native or work well in the conditions of your garden site will reduce the need for fertilizers and pesticides; and you won't have to water as often. Trees planted to reduce energy use in your home are an added bonus.

A checklist for storing household chemicals

Household chemicals such as pesticides and fertilizers become wastes if they're not stored carefully. Follow these easy tips to keep products usable for future projects.

- ▶ Always store chemicals out of reach of children and pets.
- ▶ Never store chemicals near sources of heat, sparks, or flames.
- ▶ Store chemicals in a dry place.
- ▶ Keep chemicals from freezing. However, **DO NOT** store gasoline or other fuels in your house — they're a fire hazard.
- ▶ Store chemicals in their original containers with labels intact.
- ▶ When a container is leaking, place the whole container into a larger one and call your county for disposal advice.

When pesticides and fertilizers are no longer needed, they should be disposed of properly. Call your county solid waste office for information on where you can bring them.

To learn more about what you can do:

www.reduce.org



**Minnesota
Pollution
Control
Agency**



- * Your county solid waste office is a great resource for waste reduction materials, including local waste and environmental information, education resources, and speakers.

Reduce Waste *If not you, who?*

BECOMING LESS CHEMICALLY DEPENDENT

Reduce the need for pesticides and herbicides



Pesticides (which includes insecticides, herbicides, and fungicides) are designed to kill weeds, insects, rodents, and mold. These chemicals can be poisonous and can pose a danger to animals and people, especially children. Keeping pests out of your home and yard in the first place eliminates the need for pesticides—and toxic chemicals.

 *In order to survive, pests (both the animal and plant varieties) need food, water, and a place to live.*

In your yard

Keeping your lawn strong and healthy is the best way to care for your lawn without using a lot of pesticides. A strong and healthy lawn will minimize weeds from taking root or insects from causing serious, permanent injury to the lawn. There are several easy steps you can take to maintain a healthy lawn and reduce the need for herbicides.

- **Leave your grass clippings on the lawn.** Grass clippings can provide the equivalent of about one application of fertilizer per year.
- **Use a sharp mower blade** when cutting your lawn to make it less susceptible to disease.
- **Water infrequently, but thoroughly during dry periods** of more than a week or two. Water only about once a week and thoroughly (about 1 inch of water). Avoid watering during strong sun and heat to minimize losses to evaporation. The best time to water is early in the day, before 10 a.m.

- **Test your soil.** Find out what kind of fertilizer, if any, your soil needs. Obtaining a reliable soil test every few years can help you monitor the nutrient needs of your lawn. The University of Minnesota Soil Testing Lab (612-625-3101) charges \$15. Some garden centers also offer testing.



Mow your grass to a height of 2 1/2 to 3 inches.

This is the single most important thing you can do to improve the health of your lawn. By keeping your grass a little longer, the roots grow deeper and can reach more water during dry periods. Longer grass also helps shade the soil surface, making it harder for weeds to get established.

In your home

If you're looking for a way to decrease your use of toxic chemicals in your home, take a look at how you handle unwanted pests. The best method to control pests, such as bugs and rodents, inside your home is to keep them out by cleaning up crumbs and spills quickly. Instead of reaching for a can of toxic spray, grab a broom!



Clean up food spills completely.



Store food in tightly sealed containers.



Caulk cracks and weatherstrip windows and doors to eliminate easy paths of entry. Check your foundation for cracks or spaces.



Plumbing leaks and damp basements can be an essential source of water for insects. Get rid of the moisture, and you could solve your bug problem.

In your yard (continued)

► **Use fertilizers with zero phosphorus** unless a specific need is determined by a soil test. Phosphorus (the middle number on a fertilizer bag) should be zero. Careless use of phosphorus fertilizers creates runoff which can pollute nearby lakes, streams, and rivers. Phosphorus causes unhealthy levels of weed and algae growth.



► **Control weeds.** September is the best time of year to treat dandelions, plantain, creeping Charlie, and other perennial broadleaf weeds. Remember the best weed control is a healthy, dense lawn. If the weed invasion seems to be getting worse, find out why the grass is not competitive enough to crowd weeds out. Controlling weeds may be as simple as adjusting your other lawn care practices. Where there are only a limited number of weeds present, consider removing them by hand rather than using an herbicide.



► **Seed.** The best time to reseed bare spots is either early spring or around the middle of August. If deicing salt from sidewalks or roads has caused dead areas, consider reseeding with a more salt-tolerant variety. Always plant grass varieties that are adapted to our area and are appropriate for the way you use your lawn.

► **Aerate your lawn** if soil is compacted or there is significant thatch build-up. You can do this by using a lawn aerator available from most rental stores. Use the type that removes small cores of soil from the ground and places them on the lawn surface. Leave the cores to decompose naturally, contributing to a decrease in thatch, while the holes poked into the ground help improve soil aeration for healthier root systems.

Fertilize in the fall. Mid- to late-October is a very good time to fertilize your lawn. At this time of year, fertilizer nutrients, including nitrogen, are taken up and stored in the plant where they help provide for healthy spring growth. Most fertilizers require water after application; follow the instructions on the label to ensure best results.

These lawn care tips will help you keep your lawn healthy and less susceptible to disease and weed invasion, meaning you will have less need for herbicides and maybe even less fertilizer.



Minnesota Pollution Control Agency

Minnesota Pollution Control Agency helps Minnesotans make informed decisions and take actions that conserve resources and prevent pollution and waste to benefit the environment, economy and society. Visit our web site: www.pca.state.mn.us.

April 2008

For more information about pest and weed control

The **Northwest Coalition for Alternatives to Pesticides** has many free resources on non-toxic pest management, including fact sheets on specific chemicals and alternatives for many kinds of pests at www.pesticide.org/factsheets.html.

The Gardener's Guide to Common Sense Pest Control, by William Olkowski, Taunton Press, 1996.

U.S. Environmental Protection Agency **Pesticide Environmental Stewardship Program** for reduction of pesticide use is found at www.epa.gov/pesticides/.

The **Washington Toxics Coalition** has alternative pest control fact sheets on its web site at www.watoxics.org.

Recent studies on the human health and environmental effects of pesticides

The **Center for Disease Control's** report provides an ongoing assessment of the exposure of the U.S. population to chemicals (including pesticides): www.cdc.gov/exposurereport/.

Pesticide Action Network North America (PANNA) resource page contains reports, studies (use search words "scientific studies"), and a pesticide database at www.panna.org/resources/resources.html.

The Environmental Protection Agency's **Office of Children's Health Protection** has information about environmental health threats to children at <http://yosemite.epa.gov/oceph/ochpweb.nsf/homepage>.



Muscle-powered weed killers

If you have a smaller lawn, weeds can often be managed with mechanical tools. Weeds such as dandelions can be removed easily by digging them up with a fish-tail weeder (right) when the soil is damp. For those who would rather stay off their knees, there are upright pullers such as the Weed Hound™ (left).

Visit www.reduce.org for lots of ideas about reducing waste and toxic chemicals in your day-to-day life.

[reduce.org](http://www.reduce.org)

Greening Up Your Parties



Parties and family gatherings are a joyous time, but often these festivities create lots of extra waste. From Thanksgiving to New Year's alone, the average household generates 25% more trash than any other time of the year.

Follow these tips to change the way you celebrate special occasions for a cleaner environment.

PLANNING YOUR PARTY

- Send electronic invitations – many free options are available online.
- Ask guests to RSVP so you can plan for the right amount of food.

SHOPPING FOR SUPPLIES

- Plan your shopping in advance so you make fewer trips to the store.
- Rent or borrow party games, tables and decorations instead of buying new.
- Choose locally grown food. Purchase produce from a farmer's market or ask your bakery if it uses local ingredients. Many farmers provide local food year-round.
- If local food is not available, choose organic food sourced in the USA.
- Buy non-perishable food in bulk or large volumes.



RethinkRecycling.com/events

Visit our website for more ideas on greening up your meetings.



HOSTING YOUR PARTY

- Turn down the heat before guests arrive.
- Encourage guests to carpool or use mass transit.
- Use reusable dishes, glasses, utensils and linens. You can rent, borrow or buy them secondhand.
- Place clearly marked recycling bins next to trash cans. (Contact Ramsey County at 651.266.1199 to borrow free recycling bins for your next event)
- Send leftover food home with guests and compost your food scraps.

GIFT GIVING

- Purchase or make your own greeting cards from recycled paper. Avoid greeting cards, which require special disposal.
- Send electronic greeting cards – many free options are available online.
- Give the gift of an experience, such as tickets to a sporting event or membership to the zoo.
- Create personal “gift of time” coupons for a service or talent you can offer, such as free babysitting, housecleaning for a day, or cooking lessons.
- Look for gifts that are long-lasting, non-toxic or energy-saving.

GIFT WRAPPING

- Use recyclable wrapping material like the comics section of the newspaper.
- Reuse decorative boxes and gift bags.
- Reuse packing peanuts or bubble wrap for packing material, or crumple some pages of a newspaper ad insert or magazine.
- Reuse bows, ribbons and gift tags from previous gifts.
- Make the present a part of the wrapping, like wrapping a kitchen tool inside a dish towel and tying it together with ribbon.



Green Your Meetings



Meetings may not seem like a threat to the environment, but their impacts can add up. Planning ahead is key! Disposable coffee cups, excess paper, and even refreshment selections can have an effect on the environment. From staff meetings to conferences, learn how you can go greener at your next meeting.

Incorporate the following tips that are feasible for you. Every action helps!

TIPS FOR PLANNING YOUR MEETING

- > Search for a venue that is centrally located, provides recycling for paper, cans and bottles, and provides video or phone conferencing options. Offer information on bus and bike routes near the location, and don't forget about bike racks. Also, encourage attendees to carpool.
- > There are multiple ways to reduce paper. In place of handouts, use a laptop and projector to project all meeting materials. Make meeting materials available electronically, and in print by special request. Ask if the venue has a SMART board or white board.
- > If meeting materials must be printed, print double-sided on a minimum of 30% post-consumer recycled paper.
- > Ask presenters not to bring copies of their presentation, but to offer them electronically.
- > Provide recycled paper name tags or reusable name badges.



RethinkRecycling.com/event-planning

Visit our website for more ideas on greening up your meetings.



TIPS FOR INCLUDING FOOD AT YOUR MEETING

- > Serve beverages in reusable cups or recyclable containers. Consider using tap water instead of bottled water. Provide reusable or compostable plates and flatware, as well as cloth napkins and tablecloths. And, if possible supply washable mugs or cups for beverages.
- > Provide attendees with a reusable cup or ask attendees to bring their own reusable cup.
- > Planning is key. Try to choose locally grown food, or if using a caterer, ask if they use local ingredients. When in season, purchase fresh produce from a farmer's market. If providing coffee, look for fair trade or shade-grown brands.
- > Use bulk dispensers for condiments. For example, provide a sugar dispenser instead of individual packets.
- > Clearly mark containers for items that you are collecting like recycling, food composting and food-to-livestock collection. If you are composting, ask before the meeting if someone is willing to compost the fruit and vegetable scraps in their own backyard bin. If you have leftover food, offer it to attendees or contact local shelters or food kitchens to learn about donation opportunities.
- > Share information with attendees on efforts to make the meeting green and how they can help. Encourage them to plan their own green meetings, as well as office and family celebrations.