



Conserving Tomorrow

Think *Happy Holidays*, Think **Green**, Think Nuclear
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Tips for a green winter season

Go Green: Reduce waste during the holidays and parties

Thousands of paper and plastic shopping bags end up in landfills every year. Tell store clerks you don't need a bag for small or oversized purchases.

Instead of throwing away wrapping paper on Christmas morning, shred it and use for packing material for future mail items or gifts. Recycle old newspapers by making rolled paper logs for your fireplace. Roll newspaper sheets around a broom stick until your log is the desired size, and then soak your log thoroughly in water. Dry the log overnight and use like ordinary wood. Always follow proper safety precautions when burning anything around your home.

After the holidays, look for ways to recycle or reuse your tree instead of just sending it to a landfill. Check with your community solid waste department and find out if they collect and mulch trees. Or the best possible solution to the Christmas tree issues is to buy a planted tree that you can plant in your yard or local park after the holiday.

Energy-efficient electronics save money and help protect the planet

Look for home or office electronic products with the Energy Star label when you shop. Many electronics use energy even when they're "off" to power continuous features like clock displays or remote controls. Replacing old items with energy-efficient models can save over 25 billion pounds of greenhouse gas emissions, and save money on your energy bills.

Stay Warm, Lower Your Bills and Help the Environment

As the seasons begin to change your family migrates indoors for the winter, a lot of energy can be wasted to keep your family and your home comfortable. Between 40 and 70% of all home energy is wasted, but we could save about half of that by buying efficient appliances and taking energy-saving measures.

And here are some inexpensive solutions to consider:

Cover your air conditioner: If you can't remove your window unit, consider covering it both inside and out. Besides protecting your air-conditioning unit, these covers also help keep cold air from entering your home through the space around the air-conditioner and can be a great way to lower utility bills.

Keep it sealed up: Examine doors and windows for air leaks. Sealing small air leaks is a cheap do-it-yourself project that anyone can undertake, to save money. Small spaces and gaps around windows and pipes and wires entering the home create energy wasting drafts that can cut the efficiency of your heating system. Most caulking products cost under \$10; rope caulk, one of the easiest types to apply, sells for about \$4 for 40 or 50 feet. Create a tight seal around all your windows to reduce heated and cooled air from escaping outside.

Weatherstrips are plastic, foam, felt or rubber strips that fit around window and door frames with a self-adhesive backing. Prices vary, but average about \$5 per window or door.

Check the attic for proper insulation, homes lose more heat through the roof than anywhere else. Most local utilities will give a free energy evaluation for your home.

Block drafts: Draft blockers are foam plates that fit behind light switches and electrical outlets to reduce drafts that enter through those spaces. You can get a packet of 10 for about \$3 and they're easy to install with just a screwdriver.

Upgrade your thermostat: Changing your thermostat to a programmable one allows you to control the temperature in your home at different times of the day without you being home. Keep the heat off when you're out of the house and set it to turn back up before you get home. Some also have a second set of settings for weekends, when people usually spend more time at home. The thermostats range from \$90 to \$175, but can save 12% or more on your energy bill and pay for itself within three years. (continued on page 5)



Eenie Meenie Miney Moe-

Which is the greenest tree for me?

Do your childhood memories revolve around the smell of a Christmas tree? Is your fondest memory chopping down that perfect tree with your dad? Or, do you remember getting the box out of the attic and putting the Christmas tree together with your family? Now that we are adults, what method will we use and is it the best choice for the environment?

Fresh Cut Trees

In the early 1900s, evergreens began to dwindle in number because of the popularity of Christmas trees. Environmentalists and conservationists became alarmed and began to encourage people to use artificial trees, the early versions consisting of branches of deciduous trees wrapped in cotton. In 1901, Theodore Roosevelt requested no fresh-cut trees in the White House out of concern for the forests. But the same year, a smart and forward thinking farmer started the first Christmas tree farm and the rest is history.

Now, most of the nearly 30 million Christmas trees Americans use for decoration are grown on farms -- like flowers or vegetables.

When considering that a Christmas tree can take from six to 12 years to grow, it seems like a lot of effort involved for a few weeks of holiday spirit. When considering the use of water, pesticides, and herbicides, in combination with soil erosion and the energy used to maintain the crop and transport the trees, they may not be the best decision. But, to play devil's advocate, trees are renewable, provide habitat for wild animals, absorb carbon dioxide, and create oxygen, and the industry provides many jobs. If this is the route that you have chosen then try to follow these simple guidelines.

- Try to buy an organic Christmas tree.
- Buy from smaller, local farms to reduce transportation miles and support a small, sustainable operation.
- Recycle your tree! Check your local municipality to see if there is Christmas tree recycling near you, or read here for tips on how to recycle on your own.
- Don't use tinsel or fake snow spray; they are hard to remove and make your tree ineligible for recycling.

Artificial Trees

The environmental benefits of artificial trees are that they save a real tree and can be reused, it's true. But with the sweet comes the sour. Petroleum is used to make the plastics in the trees and lots of carbon dioxide-creating energy is required to make and transport them -- and they are difficult to recycle.

Many artificial Christmas trees are made of PVC. PVC can be dangerous to human health and the environment throughout its entire life cycle, at the factory, in our homes, and in the trash. When produced or burned, PVC plastic releases dioxins, a group of the most potent synthetic chemicals ever tested, which can cause cancer and harm the immune and reproductive systems. Before purchasing a particular tree, check what it is made of and try to buy biodegradable.

Live Trees

Many of the green minded choose to buy a live tree to replant after the holiday season. However, this solution is not without its own issues. Since trees are dormant in the winter, live trees can stay no more than a week indoors or they will wake up and begin to grow again in the warmth. If this happens there is a good chance the tree will not survive once it is returned to the cold winter outdoors. It also needs gradual transition to the interior climate, and then again when it goes back outside. If you live in a climate where the ground will be frozen, you need to pre-dig a hole for the tree before the ground freezes.

Alternative Trees

One environmentally friendly option is to make a natural ornament tree by gathering some attractive branches from outside and setting them in a large, weighted vase to decorate for the holiday.

Some people choose to decorate a houseplant or add ornaments to a bush that can be planted outside when the weather turns from frightful to fruitful.

With the option of an alternative tree, your imagination is your only limitation.





Turn your trash into your garden's treasure



Composting is the decomposition of plant remains and other once-living materials to make an earthy, dark, crumbly substance that is excellent for adding to houseplants or enriching garden soil. It is the way to recycle your yard and kitchen wastes, and is a critical step in reducing the volume of garbage needlessly sent to landfills for disposal. It's easy to learn how to compost and composting bins can be found at your local home and garden center.

At its most basic, the process of composting is simply piling up waste outdoors and waiting about year. Modern, methodical composting is a multi-step, closely monitored process with measured inputs of water, air and carbon- and nitrogen-rich materials. The decomposition process is aided by shredding the plant matter, adding water and ensuring proper aeration by regularly turning the mixture. Worms and fungi further break up the material. Aerobic bacteria manage the chemical process by converting the inputs into heat, carbon dioxide and ammonium. The ammonium is further refined by bacteria into plant-nourishing nitrites and nitrates.

Composting allows decomposed materials to be reused as a nutritious supplement for your garden, lawn, and house plants. A variety of materials may be used for composting, including leaves, grass, weeds, and some kitchen scraps. Autumn settling in and the leaves filling your yard is a perfect time to begin composting. Composting provides a useful and environmentally conscious alternative to bagging up your leaves and sending them away as waste. Once you begin the process, it can become a part of your annual seasonal routine.

There are a tremendous number of options for containing your compost. Some people choose to go binless, simply building a compost pile in a convenient spot on the ground. Others build bins from materials such as recycled pallets, or two-by-fours and plywood. And, of course, there are many commercial bins on the market.

Composting is not a new idea. In the natural world, composting is what happens as leaves pile up on the forest floor and begin to decay. Eventually, the rotting leaves are returned to the soil, where living roots can finish the recycling process by reclaiming the nutrients from the decomposed leaves. Today, the use of composting to turn organic wastes into a valuable resource is expanding rapidly throughout the world, as landfill space becomes limited, and as people become more aware of the impact to the environment. It is expected that within ten years, composting will be as common as recycling aluminum cans is today. Many states have stated goals or legislative mandates to drastically reduce the amount of waste being sent to landfills. Using yard and kitchen waste (which make up about 30% of the waste stream in the US) is a good way to minimize waste overall.

Benefits

Compost can be used in gardens, landscaping, horticulture, and agriculture. The compost itself is beneficial for the land in many ways, including as a soil conditioner, a fertilizer, addition of vital humus or humic acids, and as a natural pesticide for soil. In ecosystems, compost is useful for erosion control, land and stream reclamation, wetland construction, and as landfill cover. Many people chose to either burn leaf piles, which is illegal in some states, or bag them up to be hauled away to a landfill. These choices do not have environmental or economic benefits. However, the leaves you take from your yard and compost this fall can help beautify your yard in future seasons by enriching your soil. This is an attractive alternative to polluting the air, risking a fire, or contributing to landfill crowding. Composting also provides a cost effective means of yard beautification.

Prepare

Buy a composter or make your own composting bin. Build a composting bin with stakes and mesh wire or snow fencing. Do not locate your bin near other structures or combustible materials. (continued on page 5)



Guidelines

Size matters. Your leaf pile should be four to 10 feet around and three to five feet high. A correct pile size ensures proper temperature and air flow needed for composting.

Keep your pile moist. You will know your pile contains enough moisture if you can squeeze a few drops of water from a handful of leaves. Do not add too much water.

Do not compress your pile

Shred the leaves prior to adding them to your pile. This helps speed up the composting process. You can shred them by raking dry leaves into a pile and then mowing them with a mulch mower.

Stir often. Rotate the leaves to move the outer layer to the center. Stir your compost each month in warm weather and when the smell of ammonia is present. Do not rotate the leaves as often in cool weather or the pile temperature may be disturbed.

Uses

Your completed product should yield a pile of compost about half the size of the original leaf pile. The composting process takes between four and nine months to complete. Your colorful fall leaves should now be a dark and crumbly material with an earthy odor. When the season changes to fall once again, use your compost as winter mulch or add it to garden soil with a tilter to help get your soil ready for your spring planting.

Community

Composting at home is not for everyone. There may still be a way for you to contribute positively to your community by not burning leaves or sending them to a landfill. Some communities have initiated community composting centers. The finished product is available to fertilize your community's gardens community. Inquire about community composting with your community officials or local recycling center. If this option is not currently available in your community, you may be able to initiate composting for your community.

You can contribute to the 'composting revolution' by composting your own yard and kitchen wastes at home. If you have a large yard, you might prefer the ease of composting in a three-bin system out by the back fence. Cities and towns can promote composting through home composting education efforts and the collection of yard wastes for large-scale composting.

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Reflective Window Film: Place these thin, plastic sheets directly on the inside of window panes and glass doors. The film reflects inside heat back into your home, reducing the amount that is conducted outside through windows. The film costs about \$10 a window and is easy to put on -- it adheres to the window directly, or with the help of water from a spray bottle.

Storm Window Kits: It can be expensive to have storm windows installed throughout your house, but there is a less-expensive way to weatherproof home windows. Storm window kits consist of plastic film or sheets to cover the window. Attaching the plastic is done with tape or tacks. Prices range from about \$3 to \$10 per window.

More Tips for Weathering the Winter

Winterize your vehicle by checking your air filter and fluid levels, checking tires for tread wear and proper inflation, and checking the condition of your windshield wipers. Ensuring your vehicle is ready for weather changes will reduce damage, which prevents waste from broken parts, and will keep you safe on the road.

E-cycling Electronic Gear You No Longer Use

When you get that 50 inch LCD TV for Christmas, will you throw your old boob tube out in the garbage or will you recycle? And with new technology introduced every day-more powerful computers, HDTVs, and combination wireless phone and internet, think of how much old technology will be filling the landfills after the holidays. The EPA has launched a campaign to get the word out about opportunities to reuse and recycle your old computers, TVs, and cell phones. Many electronic stores, like Best Buy, have recycling bins for old electronics.