

Environmental

Tips

for your

Home



MIAMI-DADE  
COUNTY

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# Save the Planet and Your Wallet

Are you looking to live healthier, protect the environment **AND** save money? It's easier than you think! A great place to start is in your home. Wisely using our limited resources doesn't mean you have to live in discomfort. The ideas presented in this booklet can actually *improve* your home's comfort. The best part is that many of our suggestions can be done for **FREE**.

Ready to get started? Now turn the page and pick a topic from our Table of Contents to learn what you can do. Remember to tell your family and friends how they can also live healthier, protect our environment, and save money.



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# It's **PAYBACK** time!

**“Payback”** is the phrase used to describe the value of an investment based on the time it will take to pay for itself through money saved. Basically, your investment will pay for itself through dollars saved on expenses like your electric and water bills. Say you invest \$100 in energy improvements that reduce your monthly electrical bill by \$10; your investment will “pay back” in 10 months and start making money for you after that.

The savings may be substantial for some items that may take a while to pay back (like replacing major appliances with energy efficient alternatives), while other changes may take a very short period of time to pay for themselves, but have a smaller overall impact on your budget (like changing your A/C filter).

Savings and payback time can help you figure out the long-term benefits of investing in energy and water conservation. By factoring in payback, you can see that your investment will actually start to earn you money while lessening your impact on our environment.



# Tips to Use Throughout Your Home

## It's Electric

The convenience of electricity has made it an essential part of our modern lifestyle. However, electricity is generated by utilities that still depend primarily on burning fossil fuels, such as oil and coal. These utilities must then work hard to control the amount of harmful pollutants released into our air. These pollutants can cause smog, acid rain and global warming. By making your home more energy efficient, you will save money and also help reduce these air pollutants because less electricity has to be generated.



This section has some energy conservation tips to get you started. We picked some of the best and easiest. You should also contact your local electric or gas utility for more information about conservation options and rebate programs.

### **Brrr! It's cold in here!**

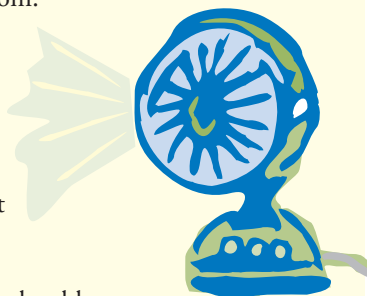
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Air conditioning typically accounts for 30-40% of your electric bill. Even a moderate reduction in A/C use could save you big bucks!

- **Turn off the A/C and open the windows.** Even in South Florida there are some months when it's cool outside.
- **Shut the door - and the windows.** When you do use your A/C, don't waste the cool air. Double-check that the windows and doors are closed.
- **Seal around doors and windows.** Caulking and weather-stripping can help to keep the cool air in and the warm air out. Even those tiny cracks can add up to a lot.

■ **Fans help us feel cooler.** A gentle breeze makes our skin feel cooler at almost any temperature. This could mean more days without using the A/C or setting the thermostat a few degrees higher. Don't forget to turn off the fans when you leave the room.

■ **Clean or change your filter monthly.** This can help you and your A/C breathe easier. Reusable filters that can be cleaned and used again will cut down on the cost and trash!



■ **Say Aaah.** Your air conditioner should get a checkup by a professional every year. An inspection and a good cleaning will not only extend the total life of the unit, but could also save you nearly 10-20% on your A/C costs.

■ **Set your thermostat to 78°F.** This moderate temperature combines comfort and energy efficiency. Each degree above that can shave an additional 5-8% off cooling costs.

■ **Switch to an electronic thermostat.** They can be set more precisely and most are programmable. Set the thermostat a few degrees higher when you plan to be out.

■ **Have your A/C ducts checked for leaks.** Repairing leaks can help your house cool down faster and save you up to 30% on your A/C costs.



■ **TREES, TREES, TREES!** Plant native shade trees on the east, west and south sides of your house. Mature shade trees can reduce air conditioning costs by up to 30%. Pay special attention to the A/C compressor outside. Shading the outdoor part of the A/C can lower cooling costs.

- **Keep the sun out.** Installing awnings or exterior shades is a good option. Installing blinds or curtains on the inside of your windows is a cheaper, but less effective alternative. Remember that light colors absorb less light and help to keep your home cooler.
- **Make sure you have good insulation in the attic.** A well-insulated attic can reduce the load on your A/C by up to 20%.
- **Now if you really want to save: make your roof a reflective white!** You can achieve huge energy savings (up to 40%) by doing this! The next time you are reroofing or repainting, choose white because this color is more reflective than other colors.

## I Can See the Light!

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- **Turn off the lights when you leave the room.** Something that simple can save electricity and make the bulbs last longer.
- **Install compact fluorescent lights in lamps and fixtures.** Initially, these bulbs cost much more than regular incandescent bulbs, but because they use a fraction of the energy and last many times longer, they easily pay for themselves over time. These lights don't get as hot so you save on A/C. Look for special compact fluorescents for dimmable and 3-way fixtures.
- **Clean light bulbs around the house.** It may seem silly at first, but dust can reduce lighting effectiveness by 10%. You should wait until they cool down before giving this a try.
- **Don't forget the outside lights.** If you have outdoor

lights that are on during the night, replace them with compact fluorescent lights. **A word of caution:** most timers or motion sensors will shorten the life of most bulbs, including compact fluorescents.





# Time to Go Shopping for New Appliances

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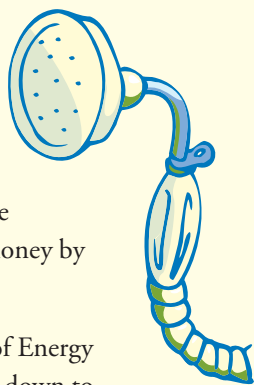
Buying appliances like ovens, refrigerators, washers and dryers is an opportunity to save energy, water and money. Shop for an energy efficient unit. The additional cost will be “paid back” many times over by decreasing your monthly energy or water bill. For example, when you replace a water heater that uses \$400 a year in electricity with one that uses \$330 but costs \$200 more, the energy savings will pay for the difference in only 2.9 years and everything after that is savings in your pocket.



For additional ideas or to request a home energy inspection, contact your local electric or gas utility, listed at the end of this booklet.

- **Shop wisely.** Remember to shop for products that can save you money in the long term.
- **Read the energy-guide sticker.** These stickers help to tell you how much energy a particular model can save you.
- **EnergyStar™.** Products with the EnergyStar™ label have been certified as being more energy efficient. Always try to pick products with this label when you are buying new items.
- **Not from the top!** Purchase a front-loading washer instead of a traditional top-loading model. They use about half the water and save energy too.
- **Don't throw appliances away.** When you buy new appliances, don't throw away the old ones. Many old models can be donated or recycled.

# Don't Get Burned Heating Your Water



Heating water can account for 20% of the energy used in your home. You can save buckets of electricity or gas, water AND money by following these tips.

- **Ouch, not so hot!** The US Department of Energy suggests that you turn your water heater down to 115°F, which provides hot enough water for most household uses. It's a common misconception that the hottest setting sterilizes the water – it doesn't. So save money and protect yourself from scalding. For every 10°F you turn it down, you can save up to 6% on your hot water costs.
- **Flush it out.** Drain your hot water heater at least twice a year. You don't have to empty it, just let it drain until the water runs clear. This usually means draining about a gallon or so. Dissolved minerals in the water build up inside the unit, so flushing it out periodically will extend the life of your water heater and save energy too.
- **Wrap up the water heater.** You can get an insulating, fire-retardant tank blanket at your local hardware store. This simple addition can reduce heat loss by up to 45%. And if your heater is in an air-conditioned space, you save on that too! While you're at it, insulate bare hot water pipes, as well.
- **Install a water heater timer.** Most working families only need hot water for a couple of hours each day. You can set the timer to turn on the heater when you normally need hot water and turn off when you don't. Doing this could easily cut hot water costs by 1/3. To find a water heater timer, check your local hardware store.
- **Go solar!** A solar water heater is also a great way to reduce household and pool heating costs.



**Tip:** Always consult an expert. Get advice from a professional before handling or making any changes to your water heater.

## More Ways to Save

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- **Don't peek!** Every time you open the oven door while cooking, you lose 25° to 50° of oven temperature, which makes you waste more electricity or gas. If you can, use the oven light to check on your food.
- **Zap it, but don't super size it!** Microwave ovens use about the same amount of power as a conventional oven, but they work much faster. Use them for reheating and for small items. They are less efficient when cooking large dishes.
- **The cleaner, the better.** The cleaner your burner reflectors are, the better they work. Good quality, clean reflectors can save up to 1/3 the energy used by the stove. Also, some ovens have a “self-cleaning” feature; if yours does, use it right after you finish cooking to save energy.
- **Help your refrigerator breathe.** Periodically clean the coils behind your refrigerator and air intake on the bottom. This will save energy and also extend the life of your unit.
- **The veggies have frostbite.** Keep the refrigerator between 38°F and 42°F, and the freezer between 0°F and 5°F. A 10°F drop in temperature will add an additional 25% to the cost of running your refrigerator.
- **Pack it in there!** Wait to do full loads of dishes instead of wasting water and electricity on a half-empty dishwasher. If you only have a handful of dishes, wash them in the sink instead. But remember, don't let the water run forever. Fill the sink for washing and/or rinsing instead.
- **Use cold water when washing clothes.** The hot water cycle of most washing machines uses 90% more energy per load than the cold water cycle. Using the hot water cycle can also shorten the life of your clothes.

- **Size does matter.** Make sure you set the load size for your laundry to the correct setting and only wash full loads of clothes. Don't waste water and electricity on a half-empty washing machine.
- **Clean your dryer's lint filter with every load of laundry.** A clogged lint filter obstructs airflow and is a potential fire hazard. If you have to dry a load a second time, you use twice the energy and you double the cost.
- **Check the exhaust.** An obstructed exhaust vent can considerably lengthen drying times and cost you money.
- **Hang them up!** Whenever possible, hang your clothes to dry. Why? The sun's energy is free.

## Other Helpful Tips

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- **Minimize the use of the garbage disposal.** Food waste can clog the pipes in your home and throughout the sanitary sewer system. Dispose of solid food items in the garbage instead.
- **Does your garbage flush?** Don't use the toilet as a garbage can. Throw tissues, cigarette butts, dead bugs, etc. into the garbage, not the toilet.
- **Buy phosphate free detergent.** All detergents legally sold in Florida are already low in phosphates, but phosphates are a major pollution problem for the Everglades. So, buying phosphate FREE detergent is even better.
- **Buy clothes that don't need to be dry-cleaned.** The chemicals used in dry cleaning are believed to cause cancer and residue on dry-cleaned clothes is considered an indoor air pollutant.



**Tip:** If you must dry-clean, remove the plastic cover and hang the garment in a well ventilated area before putting them in your closet.

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- **Wood could be better.** Try using cedar blocks instead of mothballs in your closet. You have to replace them more frequently, but won't have to worry about getting the chemical smell out.
- **Properly store chemicals.** Keep all chemicals in their original containers. Check labels to determine if items can be stored next to each other. Make sure they are stored in a locked cabinet out of the reach of children and pets. Flammable materials should be stored in a fire-retardant cabinet.
- **Recycle your used oil.** To learn where a used oil recycling facility is located near you, contact the Florida Department of Environmental Protection's (DEP) Used Oil Information Service, listed at the end of this booklet.
- **Use latex (water-based) paints.** Latex paints reduce your exposure to toxic solvent vapors and don't require solvents for clean up.



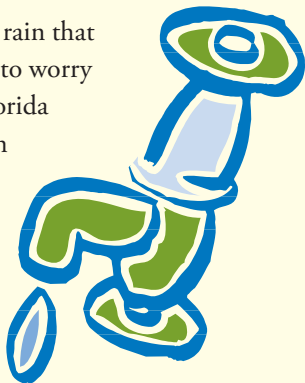
**Tip:** If the paint can is more than half full, you might want to consider donating it to your local charity. If only a little paint is left, place plenty of newspaper in the can to soak up the paint. Then, dispose of the newspaper and once it's dry throw away the empty can in the garbage as well.

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- **Other tips for paints and chemicals.** You can also take leftover paint, cleaning solvents and other household chemicals to the Miami-Dade Department of Solid Waste Permanent Home Chemical Collection Centers. Don't toss these products in the garbage unless the cans are empty. Never pour them down the drain. Contact information is listed at the end of this booklet.
- **Only buy what you need.** Many chemical products lose their efficiency if they are stored in the heat. The more products you have, the higher the chances of having a spill or accident.
- **Forget the stripper.** Don't use solvents and other chemicals when you can sand off the paint. Another option is to take the item to a commercial furniture stripper that recycles their solvents!

# Tips for Water Conservation

It's hard to believe that with all the rain that South Florida gets, we would have to worry about water, but it's true. South Florida residents use more water per person than almost anywhere else in the country, and we also experience periodic water shortages. You can cut your water usage in half by changing a few habits and taking advantage of some "pain-free" water-saving devices. When you start saving water, you start saving money! Follow these steps throughout the house and watch your water bill drop!



- **Did you spring a leak?** Make sure your home is leak-free. Check your water meter over a period of time when you are certain that no water is being used. If the meter reading changes, you have a leak!
- **Time is of the essence!** Repair leaks as soon as they are discovered. A seemingly small leak can waste 70-100 gallons of water per day.
- **Car wash, anyone?** When washing your car, move your car onto the grass. This way the excess water can percolate into the ground and recharge the aquifer, our primary source of drinking water.
- **Defrost food in the refrigerator.** Don't use running water to thaw food; it wastes water. Defrosting in the refrigerator also helps prevent bacterial contamination.
- **Water can be recycled too.** Don't pour water down the drain when there may be another use for it. For example, you can use it to water your indoor plants or garden.

■ **Is your toilet tank taking you to the bank?** It may be difficult to see the leak, so check by adding a few drops of food coloring into the tank. Wait 20 minutes and then look in the bowl for traces of the dye. If you see the dye in the bowl, you have a leak. If the color in the tank is lighter or you don't see the dye any longer, this is another indication that you have a leak. Call a plumber if you can't fix the problem yourself.

■ **Saved by the flush.** Lower the rise of toilet tank water by adjusting the tank float. Another option is to put a small plastic jug filled with water and some weights into the tank to displace water. You could save up to half a gallon with every flush (don't try this with low-volume toilets). If you are remodeling your bathroom, replace your old inefficient 3-5 gallon-per-flush toilet with a new low volume 1.28 or less gallon-per-flush model.

■ **Install low-flow devices.** Installing a low-flow showerhead or fitting a flow restrictor into your current showerhead can reduce water use by 50%. A low flow sink faucet aerator can save up to 280 gallons per year. These devices also save on hot water costs and increase water pressure.

■ **Cut down on marathon showers.** A shower almost always uses less water than a bath. Even a five-minute shower can use about 35 gallons of water, so keep it short! Shorter showers save hot water costs and air conditioning bills.

■ **Turn off the water while brushing teeth or shaving.** Only turning on the water to rinse can save up to 10 gallons of water per day.

■ **Get a free water conservation kit.** Contact the Miami-Dade Water and Sewer Department, listed at the end of this booklet, to get your free water conservation kit.

■ **Don't over-wash.** By eliminating the pre-soak and second rinse cycles when you use your washing machine, you can save as much as 19 gallons of water per load.

# Tips for Reducing Garbage

On average, each single-family home in Miami-Dade County generates 8 pounds of garbage per day! Not only do we have to build trash dumps and incinerators to handle all of this trash, but some of it never makes it into a garbage can. Instead, it winds up littering our streets, parks and waterways. Besides creating an unsightly nuisance, garbage can be harmful to plants and animals, too. Here are a few things you can do to reduce your garbage.

- **Give a hoot, don't litter.** OK so it doesn't rhyme, but you get the idea. Litter is an unsightly nuisance in our communities, and what's more, during rainstorms, trash can be washed into our stormdrains, clogging them and causing flooding. Also, when garbage goes into our stormdrains, it can end up in our rivers, canals, Biscayne Bay or other waterways, harming our environment and animals such as birds, turtles, fish and other aquatic life.
- **Snip six pack rings.** These nasty little things find their way into waterways and often drown or suffocate birds, fish and sea mammals. Always remember to throw away six pack rings in the garbage or eliminate them completely by buying drinks in cardboard packaging instead.

- **Reduce and Reuse.** Buy products that are longer lasting or that can be reused or refilled several times. For example, try a lunch box and reusable plastic

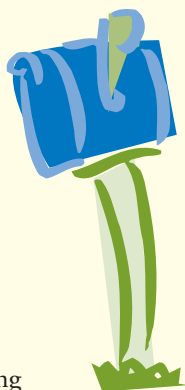




containers instead of a paper bag and plastic wrap. Shop for products with a minimum of packaging. Wouldn't you rather pick out those oranges yourself instead of taking a bunch wrapped in unnecessary plastic?

■ **Then Recycle.** After reducing and reusing, be sure to separate and recycle empty products as much as you can. Recyclables can then be manufactured into new products.

■ **Paper or plastic?** Neither, thank you. If you're only picking up one or two items, do you really need a bag? Or even better, take your own reusable bags to the store. Buy your own canvas shopping bags and cut down on waste every time you go grocery shopping.



■ **Stop junk mail!** A surprising amount of household garbage first arrives through the mail. To stop most of your junk mail, write to: Mail Preference Service, Direct Marketing Association, Attn: Department 11630860, PO Box 282 Carmel, NY 10512 or go to their website, listed at the end of this booklet.

■ **Go paperless.** Most companies now offer you the option to receive your monthly statements via email. You can even make your payments online. Not only does this cut down on the paper mail you receive, but also saves you money on checks and postage stamps!

■ **Charge it!** Why buy batteries that you can only use once? Rechargeable alkaline batteries work just as well and can be recharged 20 or more times. NiCad batteries can be recharged several hundred times. Yes, they cost more at first, but think of all those batteries you won't have to buy in the future. Note: it is illegal to put NiCad and similar rechargeable batteries in the garbage. To find a rechargeable battery collection center near you, contact the Rechargeable Battery Recycling Corp, listed at the end of this booklet.

■ **Recycle standard batteries too!** Residents serviced by the Miami-Dade Solid Waste Department can recycle batteries, including 9-volt, button and rechargeable batteries. Put them in a clear “zip-top” plastic bag and place the bag on top of your newspapers in the green bin on the first recycling day of each month. For more information, contact the Miami-Dade Solid Waste Department, listed at the end of this booklet.

■ **Recycle Old Electronics-For Free!** Drop off your used electronic equipment at either of the Permanent Home Chemical Collection Centers at 8831 NW 58th St or 23707 SW 97th Ave, Gate-B every Wednesday-Sunday from 9am-5pm. For more information, contact the Miami-Dade Solid Waste Department, listed at the end of this booklet.



# Tips for Household Cleaning Alternatives

Spills and messes around the house are harder to clean after they have dried or been stuck onto surfaces. This is usually when people resort to harsh cleaning chemicals. One of the easiest ways to be environmentally friendly and save money is to clean up messes right away and follow a regular cleaning schedule. This way you can use milder cleaners and maintain a healthier, safer home.

Keep in mind that even regular household cleaners can be dangerous. Always read warning labels, follow the manufacturer's instructions and use the most dilute solution recommended. Store chemicals out of reach of children and pets, and away from foods and medicines. Below are some alternatives and tips you can try the next time you clean.

## Countertop and Bathroom Surfaces

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- **Are you getting enough fiber?** Before using harsher chemicals, try using a better cloth or mop. Washable micro-fiber materials are the latest rage because more fibers mean more surface area for picking up soils. That means you can use less cleaning solution and less work for you. Disposable mop heads and similar products are not recommended as they generate more waste.
- **Time for your sponge bath.** Sponges are great because they are reusable, but they can also be great places for germs to live. Clean your sponges frequently with soap and water, then sterilize them by soaking for at least 3 minutes in boiling water or a dilute bleach solution.

Washing them in your dishwasher is a less effective option. Squeeze moisture from sponges when putting them away. Dry sponges are less friendly for germs.

- **A paper towel, please.** If you use paper towels, buy the kinds that are manufactured with recycled content.
- **Team up with Borax.** Follow the manufacturer's instructions and clean surfaces with one tablespoon of Borax dissolved in one quart of warm water. Be sure to wash hands with soap and water after using borax. See other uses for borax on page 17.
- **Arm yourself with baking soda.** Follow the manufacturer's instructions and clean surfaces with four tablespoons of baking soda dissolved in one quart of warm water. For no wax and tile floors, try 1/2 cup Baking Soda in a bucket of warm water.
- **Is life giving you lemons?** Then juice them and use as a cleaner for grease or soap scum and mineral deposits.
- **Some vinegar, please.** For no wax and tile floors, try 1/2 cup of vinegar in a gallon of water.



**Tip:** Whenever trying a new cleaner, always test it in an inconspicuous location first.

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## Window Cleaner

- **Use vinegar for the windows too.**

A 1/4 cup of white distilled vinegar, two cups of distilled water and up to 1/2 teaspoon of mild liquid soap or detergent makes a good window cleaner. Spray on the solution and then dry with a sheet of newspaper or lint free cloth.



## Air & Carpet Freshener

- **Floral fresh.** Putting a couple of indoor plants around the house can help to clear the air.

- **Did we mention borax?** Borax is often touted as a versatile cleaner and deodorizer. For tough areas, dampen the spot, sprinkle borax over it, rub the area, and then vacuum after it dries. For general use, sprinkle, let sit, and then vacuum. Just make sure to dispose of the vacuum bag after using; and be sure to wash hands with soap and water after use.
- **Deodorize more than the refrigerator.** Baking soda can be used to deodorize carpets. Sprinkle, let sit for at least 15 minutes, and then vacuum.

## Oven Cleaner

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- **Good for baking and cleaning.** Baking soda penetrates and helps lift off baked-on, dried-on foods from cookware. Shake on a generous amount of baking soda, add hot water and dish detergent, let sit for 15 minutes and gently rub tough spots. Rinse and wipe clean as usual.

## Drain Cleaner

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- **Don't be a greaser!** Never pour grease down the drain; it can clog pipes. Instead, pour it in a non-recyclable container and throw it out with the garbage.
- **Take action before you have a clog.** Periodically treat drains with a build-up remover that contains bacteria and enzymes. This can be bought in your hardware store.
- **It's a hands-on job.** When hair gets caught in the drain strainer or stopper, just remove it by hand.
- **Take the plunge.** Clear clogged drains with a plunger or a plumber's snake.



**Tip:** Be sure to wash hands with soap and water after using cleaning products.

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# Tips for Pest Control (without poisoning yourself)

Pests are plants or animals found some place that you don't want them. They may simply be annoying, carriers of diseases, or even damage property. When you spot or suspect a pest is around, before you grab the nearest can of bug-killer, try the following methods.

- **Starve the bugs by keeping things clean.** Insects need to eat. Dry foods in a cupboard, garbage in a trashcan, crumbs on the floor or even residues from spills can all attract bugs. Keep storage containers sealed and clean up messes quickly and thoroughly.
- **Block off bug highways.** Caulking and sealing around baseboards, moldings, cupboards, pipes, ducts, sinks, toilets and electrical outlets, as well as weather-stripping doors and windows may help reduce routes of entry for pests.
- **Identify the specific pest.** You may need to take a picture, or even capture one when possible, and have a professional identify it. Then you'll know how to fight it.
- **Target the specific pest.** If you decide to use a pesticide, select one designed for that specific pest. It'll work better and do less harm to beneficial insects.
- **Use bait stations or traps.** These can help control pests without chemical sprays. But don't skimp: Not using enough traps is a common mistake.
- **Fight the resistance.** Instead of spraying more of the same chemical, try switching to something with a different active ingredient and/or mode of action.

- **Control rather than eliminate.** In some cases, such as outdoor settings, it may be impossible to eradicate a pest. Work to achieve a tolerable level.
- **Sticky situation!** Try sticky flypaper, double-sided tape or even petroleum jelly to catch bugs.
- **Ouch!** Boiling hot, soapy water has been used to control some ant nests in the ground.
- **Less toxic is better.** Silica “gel” or diatomaceous earth (insect control kind) are less toxic chemicals and are effective in roach control by “drying them out.”
- **Consider boric acid.** It’s a less toxic pesticide that has been effective in roach control. See the “Boric Acid” section on page 22 for more information
- **“Spot” could use some grooming.** Regularly groom pets with a flea comb. Fleas should be collected after grooming. They can be easier to spot if done on a white surface.
- **May I help you?** Some types of ants, spiders and other bugs are actually helpful. They eat other insects and help control pest populations this way.
- **Tie it tight.** Garbage should be wrapped and trash containers should be tightly covered and frequently washed.
- **Set up roadblocks.** Mesh screens can be used to block off windows, entrance doors and similar routes.
- **Dust off that old fly swatter.** Fly swatters still work. Improve your aim: flies tend to jump up and backwards, so aim about 1 ½” behind them. Keep in mind that fly swatters can be used for all kinds of bugs.
- **Lethal? Nope.** Most spiders are not poisonous to human beings.
- **You don’t live here anymore!** Eliminate spider homes repeatedly (with a vacuum or broom) to destroy their habitat and prevent them from being able to nest and lay eggs.

- **No food, no problem.** Control spiders by controlling insects that serve as spider food. Spiders are often more resistant to chemicals than insects, so directly controlling them with chemical sprays is often not effective. Their long legs also help to elevate them above pesticide residues on surfaces.



**Tip:** When it comes to using pesticides, start with the lowest amount and/or concentration recommended. Increase as suggested only if necessary. Never pour these chemicals down the drain. They can be properly disposed of at the Department of Solid Waste Management's Home Chemical Collection Center. Contact information is listed at the end of this booklet. Always use caution and follow the manufacturer's instructions.

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## Avoiding Mosquitoes

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With the threat of diseases like the West Nile virus, which is spread by mosquitoes, it is important to reduce your chances of getting bitten.

- **Avoid dusk to dawn.** Avoid being outdoors when mosquitoes are seeking food. For many species, this is during the dusk and dawn hours.
- **Cover up.** Whenever possible, keep bare skin covered by wearing long sleeves and pants.
- **Keep it dry.** Minimize places for standing water, which is where mosquitoes lay their eggs.
- **Use screens.** When possible, keep windows and sliding doors closed. Using screens in your doors and windows is always a good idea.
- **Block or repel those mosquito bites.** Always follow the manufacturer's instructions whenever applying mosquito repellents, use lower concentrations of DEET for kids, and reapply only as needed. Depending on the concentration of DEET or the use of alternative ingredients such as soybean oil, lemon-eucalyptus, IR3535 and citronella, the length of protection can vary from several hours to less than 30 minutes.



# Safer Pesticide Alternatives

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All pesticides sold or used in the United States must be registered by the EPA. Even natural or organic pesticides can be dangerous or toxic to humans and pets and should be properly used. Below are some natural or less toxic pesticides and ingredients.

## Insecticidal Soap Spray

- **Go commercial.** Look for commercially available insecticidal soaps and follow the manufacturer's directions.
- **Family recipe.** If making your own, you should use a liquid soap, not detergent. The soap spray should be diluted to about a 1%-2% solution (½ to 2 tablespoons of soap per quart of water).
- **After dark.** Insecticidal soaps work only on direct contact with the pests. There is no residual insecticidal activity once the soap spray has dried. Therefore the best time to spray is during slow-drying times.
- **Do you have full coverage?** Thorough coverage is vital for the soap to be effective. Depending on the pest, this includes the bottom sides of leaves. Spray thoroughly, but not to the point of runoff. Repeat applications may also be needed.
- **Soft or hard?** Insecticidal soap works best on soft-bodied insects such as aphids, mealy bugs, spider mites, thrips and whiteflies. Depending on additional ingredients, it can also be used for caterpillars and leafhoppers.



**Tip:** Like all soaps, insecticidal soaps can be mildly irritating to skin and eyes.

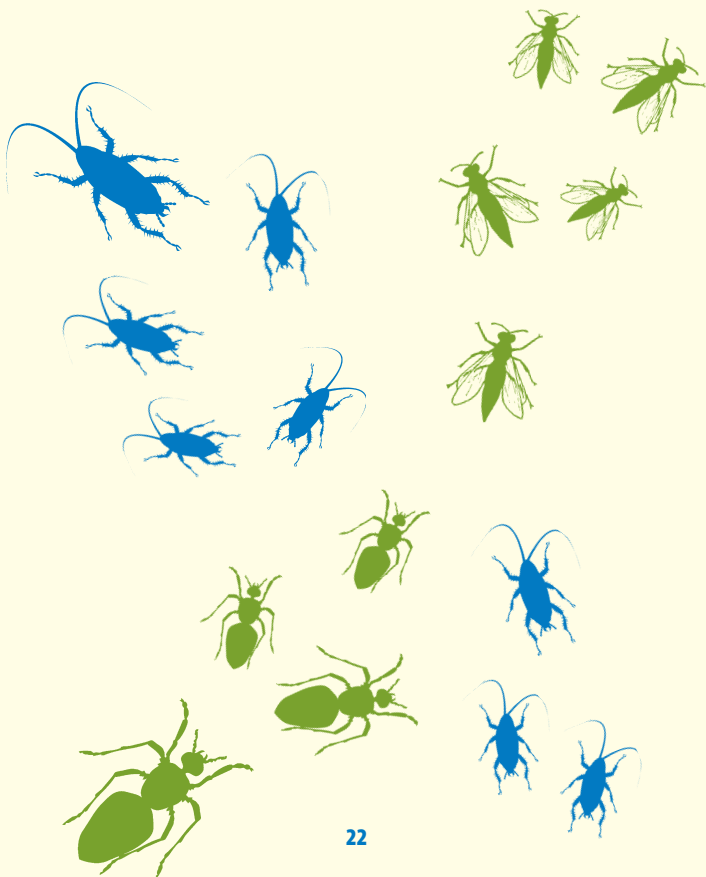
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## Boric Acid

- **Go natural.** Boric acid is a good alternative to stronger pesticides. Boric acid is made from borates, a naturally occurring mineral.
- **Danger, poison.** Pesticide products containing Boric acid can act as stomach poisons in ants, cockroaches, silverfish and termites, while others abrade the exoskeletons of insects.
- **Get in the tight spots.** Boric acid can be applied to cracks, crevices, etc., preferably as a light dust.
- **Safety first!** Follow directions when using Boric acid, including avoiding skin contact and possibly using a dust mask. Always wash your hands after using chemicals.



**Tip:** To learn about the use of plant oils for pest control, visit the Plant Oil Fact Sheet website, listed at the end of this booklet.



A large, stylized sun graphic in the top left corner, featuring a yellow spiral center and radiating yellow lines. The title "Tips to Use Outdoors" is written in a bold, green, sans-serif font, partially overlapping the sun graphic.

# Tips to Use Outdoors

## Lawn Care

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A well-planned landscape can be beautiful, functional, easy to maintain, and it can even help to increase your property's value. Unfortunately, our yards are actually the greatest source of contamination of the groundwater, which is the main source of drinking water in South Florida. Overusing or incorrectly using pesticides, herbicides and fertilizers can damage your plants and contaminate our groundwater.

Remember, pesticides, herbicides and fertilizers can be dangerous. Always read warning labels, follow the manufacturer's instructions, and use the most dilute solution recommended. Store chemicals out of the reach of children and pets.

## Right Plant-Right Place

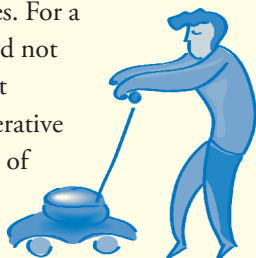
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The key to having a healthy, low-maintenance landscape is choosing the right plants for the right place. Make maintenance easier and cheaper by grouping plants together that have similar needs for soil, moisture and sunlight.

- **Go native.** Native plants are generally easier to maintain because they have adapted to local environmental conditions, but even native plants need to be placed in the right location within your yard. Select plants that match the existing conditions for soil, moisture and sunlight.
- **Xeriscape.** Save water everyday and be prepared for our next water shortage with drought tolerant native plants. To learn more about xeriscaping, contact the Miami-Dade Cooperative Extension, listed at the end of this booklet.

■ **Make your landscape work for you.** Trees and shrubs planted to shade the west, east and south sides of your home can help to reduce your A/C costs. In addition, trees and shrubs are usually easier to maintain than grass.

■ **Don't be a pest.** We love plants, but some can be real pests - especially the exotic ones. For a list of prohibited species that should not be planted in Miami-Dade, contact DERM or the Miami-Dade Cooperative Extension Service, listed at the end of this booklet.



## Yard Care

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■ **Mucho mulch.** Mulch looks good, helps retain soil moisture, keeps down the weeds and improves your soil. Apply mulch 2-3 inches deep around plants and out to the drip line of trees. Coarser mulch such as pine bark can be 3-4 inches deep (remember to leave enough space around the trunk of trees and plants). The most environmentally friendly method is to recycle tree cuttings and other non-pest organic debris from your yard as mulch.

■ **If you must.** If you do purchase mulch from a hardware store, avoid cypress mulch and any mulch that may contain pressure treated wood. The best kind of mulch is pine bark, which is in big enough pieces to keep the weeds down and allow water to pass through it. An added plus- it's a by-product of Florida's forests.

■ **It's all in the timing.** The best time to water is in the morning before 9am or in the evening after 5pm. In fact, watering during the day isn't just wasteful, Miami-Dade County residents should be aware of Permanent Landscape Irrigation Restrictions that prohibits watering between the hours of 9am - 5pm.

■ **Tree pruning is an art and science.** Some things are just best left to qualified and certified professionals. Hat racking and causing other severe tree damage is illegal

in Miami-Dade County and can end up costing you a lot of money. Get all of the right information first, and prune later. For more information, contact DERM's Tree Section, listed at the end of this booklet.

- **Don't overdo it!** Only use the minimum amounts of pesticide, herbicide and fertilizer recommended on the label. Trees and shrubs usually need less than you think. Increase amounts of these products only if necessary. For more information, contact the Miami-Dade Cooperative Extension Service, listed at the end of this booklet.
- **Don't use "weed and feed."** It can actually harm your trees and pollute the ground water.
- **Bricks are better.** Don't pave over your lawn. Instead, use porous pavers or bricks for your driveway. This will allow rainwater to soak back into the ground.
- **Compost.** When you compost, vegetable scraps, leaves, grass clippings and other organic materials break down into a material you can mix into your soil, helping to improve your garden condition. Besides being inexpensive, composting helps reduce watering needs by allowing the soil to retain more moisture.



**Tip:** For more ideas about yard care and pest control, contact the Miami-Dade Cooperative Extension Service, listed at the end of this booklet.

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## Know How to Mow

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Less grass and proper landscaping is more beneficial for trees and plants, the environment and your budget. But if you do have a lawn, follow these simple care tips.

- **Just a little higher.** For most South Florida turf grasses, at least 2-3 inches is a good height. Keeping your grass this high promotes healthier roots for a greener, pest resistant and drought resistant lawn.
- **Don't be dull.** Sharp mower blades cut easier and reduce tearing that can weaken the grass.

■ **Use a mulching mower.** Some mowers have special blades that chop grass into fine clippings. This will eliminate bags and bags of waste grass and automatically fertilize your soil the natural way!

## So, there you have it

Now that you've learned all of these great environmental and money saving tips for your home, get out there and make these simple changes! These new habits will allow you to live healthier, save our environment and at the same time, put a little money back in your pocket. Remember to pass these useful tips on to your family and friends, too!



# Important Contacts

## Department of Regulatory and Economic Resources (RER)

RER 24-Hour Hotline	(305) 372-6955
RER Main Information Line	(305) 372-6789
Water Resources and Coordination	(305) 372-6784
RER's Tree Section	(305) 372-6574

## Emergencies

RER 24-Hour Hotline	(305) 372-6955
National Pesticide Telecommunications Network	1-800-858-7378
Poison Control	1-800-222-1222

## Energy Conservation

Florida City Gas	1-888-352-5325
Florida Energy Office	(850) 617-7470
Florida Power and Light	1-800-DIAL-FPL
Florida Solar Energy Center	(321) 638-1015
Tampa Electric Gas Company (TECO)	1-888-223-0800

## Other Important Numbers

Environmental Protection Agency (EPA)	(202) 566-0799
Florida Department of Environmental Protection (DEP)	(850) 245-2118
Miami-Dade 311 Answer Center	311
Miami-Dade Cooperative Extension Service	(305) 248-3311
Miami-Dade Solid Waste Department (DSWM)	(305) 594-1500
Miami-Dade Water and Sewer Department (WASD)	(305) 665-7471
Rechargeable Battery Recycling Corp.	1-800-8BATTERY
South Florida Water Management District (SFWMD)	(305) 377-7274

## Websites

DEP	<a href="http://www.dep.state.fl.us/waste">www.dep.state.fl.us/waste</a>
Direct Marketing Association	<a href="http://www.DMAconsumers.org/consumerassistance.html">www.DMAconsumers.org/consumerassistance.html</a>
Energy Star™	<a href="http://www.energystar.gov">www.energystar.gov</a>
EPA	<a href="http://www.epa.gov">www.epa.gov</a>
Florida City Gas	<a href="http://www.floridacitygas.com">www.floridacitygas.com</a>
Florida Solar Energy Center	<a href="http://www.fsec.ucf.edu">www.fsec.ucf.edu</a>
FPL	<a href="http://www.fpl.com">www.fpl.com</a>
Miami-Dade Cooperative Extension Service	<a href="http://miami-dade.ifas.ufl.edu">http://miami-dade.ifas.ufl.edu</a>
Miami-Dade RER	<a href="http://www.miamidade.gov/environment">www.miamidade.gov/environment</a>
Miami-Dade DSWM	<a href="http://www.miamidade.gov/dswm">www.miamidade.gov/dswm</a>
Miami-Dade WASD	<a href="http://www.miamidade.gov/wasd">www.miamidade.gov/wasd</a>
National Pesticide Telecommunications Network	<a href="http://npic.orst.edu">http://npic.orst.edu</a>
Plant Oil Fact Sheet	<a href="http://www.epa.gov/pesticides/biopesticides/ingredients/factsheets">www.epa.gov/pesticides/biopesticides/ingredients/factsheets</a>
Poison Control	<a href="http://www.1-800-222-1222.info">www.1-800-222-1222.info</a>
Rechargeable Battery Recycling Corp.	<a href="http://www.rbrcc.org">www.rbrcc.org</a>
SFWMD	<a href="http://www.sfwmd.gov">www.sfwmd.gov</a>
Tampa Electric Gas Company (TECO)	<a href="http://www.tampaelectric.com">www.tampaelectric.com</a>



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