



Strategies for global warming summers

This month we'll look at green strategies for keeping cool and dealing with heat-related drought conditions. Some of these solutions may seem all too obvious, but if you're not actually doing them think of this as motivation to get into some new habits.

We've come to expect 72-degree indoor temperature year round, and a never-ending flow of purified water from our taps. Recent power outages and water main breaks teach us that we can't always rely on those expectations, and learning to reduce our energy and water consumption is good for fighting off and adapting to the harsher global warming conditions yet to come.

Cooling and coping with hot weather

Here are some tips and tricks to stay cool without using a lot of electricity or spending a lot of money.

Nighttime flushing – Use natural or fan-assisted ventilation to cool your house at night, provided that it's cooler outside than inside. Open windows on first floor on cooler north and east sides of house and windows on 2nd floor on warmer south and west sides of house. Bonus if you can figure out how to draw air through a cool basement to the upper floors.

Windows – After you cool off your house at night, make sure to close it up tight during the day. Keep doors and windows closed, and close the shades and curtains to reduce solar heat gain (especially on exposed south and west facing windows). Even close your storm windows in the summer; they'll help maintain cooler inside temperature.

Air conditioning – Reduce its use by leaving it off as much as you can, by setting the temperature a little higher, and by closing registers and doors to unused rooms. If you have window units, cool only one or two rooms.

Fans – Whatever temperature you achieve through flushing, shading or air conditioning, put on a fan or two. They make you feel a few degrees cooler without using much energy. And if your attic gets really hot, set up a fan on a timer to blow the hot air out.

Cook outside and eat more salad – Reduce the amount of heat in your house with summer foods that can be eaten raw. And when you do cook, try to do some of



Use ceiling fans in the summer to make you feel cooler; if you still need the air conditioning, set the temperature a little higher..

it outside. (Electric and gas grills are better than charcoal for the environment.) We recently discovered the brilliance of putting the toaster oven on the porch and using a solar cooker when we have a little extra time.

Bring back the siesta – If you can, shift your sleeping and work schedule so that you're awake a little earlier and doing work during the cooler part of the day. Then take a break with something more sedentary or just nap during the hottest part of the day.

Local energy expert, Keith Winston of Earth, Sun Energy Systems, offers this: "Don't underestimate the power of acclimatization: exercising in warm weather can really shift your comfort zone. Unfortunately, if you work in an air-conditioned office, you're doomed."

I've been informed that in some cultures "siesta" implies a little hanky panky in the afternoon. I'm not sure if that's counter-productive in terms of avoiding physical exertion during the hottest part of the day or if it counts as acclimatization efforts!

Green Mythbusting

If a fan blows in a room, but no one is there to feel it, does it save energy?

No. The way a fan works to cool is by creating a wind chill effect. It doesn't actually change the temperature of the air. So just like a light bulb, if you're not in the room to enjoy the fan, turn it off. (Some exceptions are if you're using the fan to remove excessive hot air, or distributing cool air around the house.)

Does it make sense to run my air conditioning at night instead of during the day?

Yes, if you can really avoid or reduce using it during the day. In our area the peak electricity demand is on hot summer afternoons when air conditioners are cranking. This is also when the oldest, most polluting power plants are brought online and there's the greatest stress on the power grid. Until time-of-use metering comes to our area there's no financial incentive to reduce late afternoon power use, but it's still good for the environment. So if you have a decently insulated and/or shaded house, try running air conditioning (and dehumidifiers, dishwashers and laundry machines) at night and keep your house closed up and use fans during the day.

Send your green questions to satjiwan@alumni.brandeis.edu

Conserving water,

Here are some ideas to conserve and reuse water, while helping to recharge the groundwater.

Reducing water – Install low-flow faucet-aerators and showerheads. Use the dishwasher; unless you're really careful, washing by hand uses more water. For hand washing use a basin with a little (eco-) soapy water, and save your rinse water. Share flushes or use half-flushes. You may not even need a new "dual-flush" toilet. Try carefully pushing the handle half way down, adjusting your flapper (if it's adjustable), or buying a retrofit kit. Bonus if you can get a Ⓔ flush using a half push on a dual-flush toilet.

Reusing water – It's currently illegal in Montgomery County to have an official plumbed grey water system where you reuse your sink, tub, shower, dishwasher and laundry water, but don't let that stop you from setting up a manual system which can capture up to 20 gallons of water per day.

With creative placement of basins or 5-gallon buckets, you can easily collect water you use waiting for the hot water. Save the tub water and dehumidifier water, too! Then use this water to flush the toilet, water your plants or garden, or partially fill the washing machine (many large hotels reuse the final rinse water in the first wash of the next load of laundry!). Or simply put it out on your yard or trees to recharge the groundwater, instead of sending it to the water treatment plant. Bonus if you can capture your sump-pump water, too.

From personal experience, we've found the best and easiest places are a bucket in the shower, the kitchen sink and saving dehumidifier water.

Watering Efficiently – Water your garden in the early morning, or more preferably at night, to maximize absorption and minimize evaporation. Water at the base of each plant to avoid waste on the surrounding ground or un-needed moisture on the leaves (which also helps reduce fungus growth).

Water and energy savers – If you are into cold showers the simple answer is to turn off your water heater. Or at the least remember to do it when you go on vacation

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