Sustainability@OHIO STATE

THE OHIO STATE UNIVERSITY

EARTH DAY 2020: TIPS TO REDUCE YOUR CARBON FOOTPRINT

Ohio State is taking action to reduce its carbon emissions by 55% by 2030 with an ultimate goal of becoming carbon neutral by 2050, as detailed in the 2020 Climate Action Plan. Individuals can also reduce their carbon footprints by making lifestyle changes. Below are suggestions for how everyone can take action on climate change based on the way we spend our time.

Home Energy Use

Heating, cooling and other energy use around the home accounts for about 30% of the average American's carbon emissions. Making some one-time changes can have a lasting impact in terms of reducing carbon emissions throughout the year and can save money.

- Make small adjustments: Tweaking the temperature settings of the home thermostat, water heater, refrigerator and freezer can make an annual difference by using less energy and saving money. A programmable thermostat can pay for itself in a relatively short period of time. Check online for recommended temperatures to keep food within safe temperature ranges.
- Computing: With more people working from home, home computer use continues to rise. When you replace your computer, consider a lower energy using laptop rather than a new desktop.
- Choose renewables: Many consumers have options to switch to power from renewable energy sources through their local utility. If you can, consider installing solar panels for your home. Solar panel prices have fallen dramatically and installation incentives might exist.

Learn how an Ohio State researcher is using a chemistry breakthrough to improve the efficiency of solar panels.

Travel and Commuting

Transportation is one of the largest contributors to climate change, estimated at about one quarter of all carbon emissions. How we get from place to place can have significant implications for our carbon footprint.

- Ride a bike: Many American cities aren't designed for cyclists or pedestrians, but many of us choose to drive cars even if multi-use trails exist. Try leaving the car at home and strap on a bike helmet instead.
- Invest in a hybrid: Hybrid vehicles provide greater gas mileage than conventional counterparts. With a higher purchase price, they might not be an option financially for those on a limited income. While there are no current federal incentives for hybrid purchases, some employers offer discount programs.
- Skip traveling altogether: Take advantage of remote conference and meeting technologies to have "face-to-face" conversations. Many of us are now more adept at these technologies due to COVID-19 stay-at-home orders.

Read about researchers at Ohio State's Center for Automotive Research who are optimizing lithium-ion batteries to help power passenger airplanes.

Cooking and Eating

The food we enjoy can account for up to 15% of our individual carbon emissions. Animal-based protein, for instance, has a higher carbon footprint than an equivalent amount of plant-based protein. Transporting food from where it is grown to our stores adds further to the carbon ledger.

- Practice meatless Mondays…and Tuesdays: Plan a family dinner or two each week without meat. It will stretch your culinary abilities and reduce your carbon footprint by about 8 pounds each time.
- Buy local and in season: Farmers markets are a great way to buy locally grown, fresh food. Grocery stores are also responding to the interest of consumers in locally grown food. Go even more local by growing a backyard garden.
- Meal planning: Before dismissing this suggestion due to a lack of time, consider this: Approximately one-third of the food we buy is wasted. Not only does that mean more carbon emissions to produce food we don't eat, it wastes money. A weekly meal plan can reduce food waste and result in less time wandering the grocery store.

The Ohio State University at Mansfield launched an urban sustainable food-system project that will increase area residents' access to fruits, vegetables and other specialty crops while supporting the local economy.

Shopping

What we purchase and the way we take care of it has implications for our individual carbon emissions. The way we shop matters, too. Many of us order online, resulting in greater carbon emissions from shipping and additional packaging.

- Back in style: The fashion industry is a significant source of carbon emissions, especially when clothing is worn only a couple of times. Shop for "vintage" clothes to support local small businesses or nonprofits that help those in need.
- Wash in cold water: Take care of your clothes by washing your laundry in cold water using detergent engineered for this purpose. Heating water for washing accounts for about 90% of the energy used by washing machines.
- End aspirational recycling: More home delivery means items come with more packaging. Many people err on the side of putting something in the recycling bin if they are not sure if it is recyclable. Non-recyclable materials from coffee cups to garden hoses contaminate recycling streams and mean more trips to the landfill. When in doubt, leave it out.

An interdisciplinary team of researchers at Ohio State is pioneering biodegradable alternatives to plastic for food packaging.

Yardwork

Forests and other natural areas sequester carbon from the atmosphere. While few of us are fortunate enough to have a forest for our backyard, small changes in the way we keep our yards can offset our personal carbon emissions while providing needed habitat for pollinators and other native species.

- Go native: Lawn care is an added expense to many homeowners. Consider replacing part of a yard with native plants and wildflowers. These areas require less maintenance and provide vital habitat to pollinators at risk.
- Plant a tree: As the adage goes, the best time to have planted a tree was 40 years ago, but the second best time is today. If you do not have space to plant a tree, consider volunteering at a tree-planting event with an environmental nonprofit.
- Carbon offsets: Nonprofits and some companies such as airlines sell carbon offsets to help individuals lower their net emissions. Many of these offsets are generated from efforts to protect and enhance natural areas.

Ohio State researchers share insights on the impacts of deforestation on carbon emissions and how nature compares to technology in reducing pollution.