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The Hidden Environmental Cost of Added Sugars

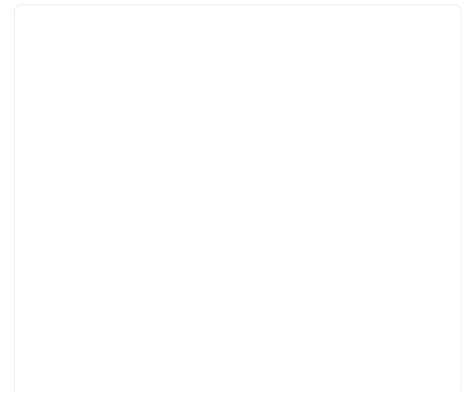


By [Gemma Alexander](#)

○ JUL 8, 2021

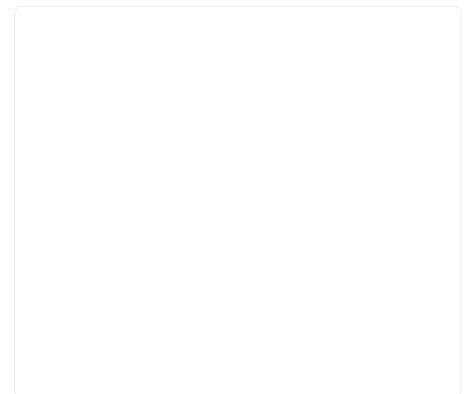


The environmental impact of the teaspoon of sugar in your morning coffee pales next to the impact of the [coffee](#) itself and even the [electricity](#) required to brew it. But it's not just a teaspoon of sugar. Americans eat more sugar than any other country in the world. At about [152 pounds](#) per year, that's more than [twice the average](#) among industrialized nations. And we don't even realize it, thanks to processed foods. There's sugar in everything you buy, from [sandwich bread](#) to [protein bars](#), and besides the health impact, the environmental impact of all those sweeteners may leave a bitter taste in your mouth. What is the environmental footprint of your sweet tooth?



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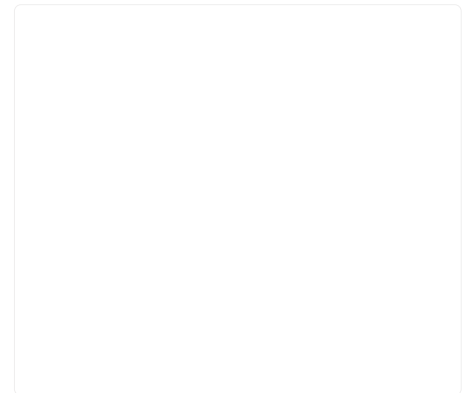
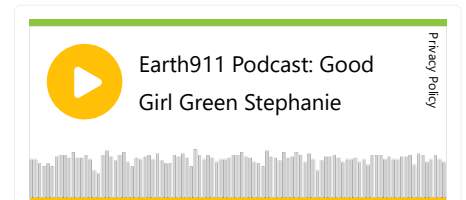
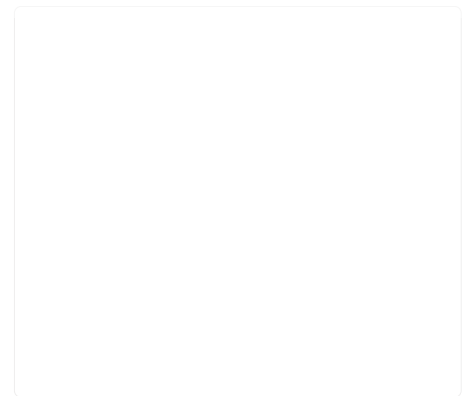
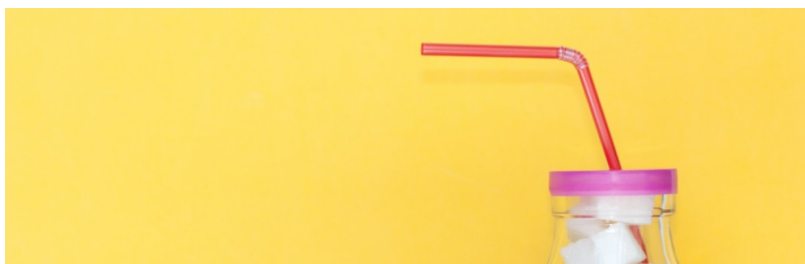
Cane Sugar

Sugar is the [most-grown crop](#) in the world, but a lot of it goes to making biofuels and bioplastics instead of sweetening food. The [impacts of sugar cultivation](#) vary by location, but producing 1 kilogram (about 2.2 pounds) of refined sugar requires on average 1,782 liters of water (that's more than 470 gallons). In places where crop residues are still burned, a ton of sugar produces around [241 kg of carbon dioxide equivalent](#). Sugarcane monocropping requires significant chemical inputs that contribute to water pollution. Cultivation of sugar is also labor-intensive; sugar plantations from [Central America](#) to [Southeast Asia](#) are accused of labor violations and human trafficking.

An international consortium called [Bonsucro](#) certifies sustainable sugarcane for corporations but does not provide a consumer-facing label. Organically grown sugar reduces carbon emissions and, through soil-enhancing farming methods, improves carbon sequestration. But most USDA Organic [certified sugar](#) is grown in countries with poor labor practices. Fairtrade certified products may be a better choice, since that label has standards for both labor and sustainability.

Sugar Beets

Sugar beets share many of the same issues as cane sugar, but beets are less water-intensive. On average, 1 kg of sugar from beets requires [920 liters of water](#). Since the 1990s, most of the sugar produced in the U.S. has come from Roundup Ready [GMO beets](#) and is used in processed foods. Although many consumers distrust GMO food crops, the trade-off is that these beets can grow with fewer chemical inputs. However, by definition, GMO crops cannot meet organic standards. One [Dutch study](#) found that domestically grown sugar beets had a quarter the climate impact of sugar imported from India, used half as much land, and cut erosion by nearly two-thirds. The information available in the U.S. is [less encouraging](#): Beet processing facilities are found among the nation's top 20 polluters alongside oil refineries, mining companies, and chemical manufacturers.





There's sugar in all of the packaged, processed foods you buy, but identifying the source of that sugar is nearly impossible.

Corn Syrup

Nearly a third of America's cropland is [devoted to corn](#), a crop that uses more chemical inputs and results in more erosion and water pollution than any other. About half of it goes to animal feed, so if you're looking to reduce environmental impact, [cutting down on meat and dairy](#) will go further than avoiding corn syrups.

But the 7% of America's corn converted to sweeteners still leaves a big footprint. Producing 1 kg of corn syrup takes even more water than an equivalent amount of cane sugar. And like beets, nearly all corn grown in the U.S. is genetically modified. (The estimated carbon footprint of corn syrup, [one-third kg carbon equivalent per kg](#), is so low compared to sugar that it probably reflects the different parameters of the studies more than any difference between crops; another study concluded corn syrup had the [highest greenhouse gas emissions](#) among Australian cane, U.K. beets, and American corn.)

Cut It Out

There is no clear winner among these sweeteners, but cane sugar, beet sugar, and corn syrup are just the beginning. There are at least [61 different names](#) for sugar listed on food labels, and most products contain multiple types of sugar. You might try [baking with healthier sweeteners](#) and replacing the sugar in your tea with [honey](#). And making a point of reading labels will tell you two things: how much and what kind of sugar is in the food you eat.

But when it comes to packaged products, identifying the source of those sugars is [nearly impossible](#). And the options for choosing your own added sugars are limited. It will be easier and healthier to cut your carbon footprint by replacing high

sugar foods with [healthier alternatives](#) . That means looking for products with the lowest amount of added sugar, regardless of type. And whenever possible, eating fresh, whole foods instead of packaged, processed food products. You're trying to do that anyway, right?

Feature image courtesy of [Haley Owens](#), Unsplash

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Reading time: 3 mins

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By [Gemma Alexander](#)

Gemma Alexander has an M.S. in urban horticulture and a backyard filled with native plants. After working in a genetics laboratory and at a landfill, she now writes about the environment, the arts and family. See more of her writing [here](#).

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