

SUSTAINABILITY:

Environmental and Sustainable Buzzwords

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This article focuses on key environmental and sustainability buzzwords and phrases, including how each one relates to culinary institutions. Please note that they are not listed in order of importance.

WHAT IS THE DIFFERENCE BETWEEN CLIMATE CHANGE AND GLOBAL WARMING?

Global warming refers only to the overall warming of the Earth's atmosphere due to the rapid increase in greenhouse gases and other issues caused by human beings. Greenhouse gases, discussed below, are things like carbon and methane that act to trap heat in the gases that surround the planet, that we refer to as the atmosphere. It was the first phrase used to discuss this environmental issue.

Climate change refers to all weather and climate issues caused by changes to the earth and its atmosphere caused by humans. These include changes in rain patterns, change in the severity of storms/droughts/forest fires, change in wind patterns, etc. Global warming, it should be noted, is part of climate change.

Finally, you should know that the terms 'global warming' and 'climate change' are nearly 50 years old. These are not new concepts. Today most people concerned about the climate now refer to it as the 'climate crisis'.

Climate change has a direct impact on the hospitality and culinary world. For example, in the winter of 2022, just as restaurants, hotels, clubs, etc. were recovering from COVID, many had to shut down or experienced extreme decreases in sales because of extreme inclement weather, from coast to coast, which halted travel and forced people to stay inside.

WHAT DOES "CARBON FOOTPRINT" MEAN?

According to the Oxford Dictionary: "carbon footprint is a measure of the amount of carbon dioxide and other carbon compounds emitted due to the consumption of fossil fuels by a particular person, group, etc." In other words, a carbon footprint is the total amount of all greenhouse gases that are generated by a person or an action. For example, when you are driving, the gases released from your vehicle are part of your carbon footprint.

Basically, everything done in a food service venue has a carbon footprint. From the gas that is used for cooking, to the unintentional release of coolants from air conditioners and refrigeration units, to the electricity used to run the dishwashers, everything has a carbon footprint. What must be remembered is that everything coming in the back door, from chemicals to paperwares, to food products, all have a carbon footprint. And that footprint continues with what goes out your back door either as garbage, recycling, etc.

Something that most owners and managers don't consider is the carbon footprint generated by each of your employees and customers getting to and from your establishment. How far did they come? Was it public transportation, walking, driving a car, etc.? And, of course, there is a carbon footprint caused by all the food deliveries.

WHY THE FOCUS ON CARBON? WHAT IS CARBON AND WHERE IS IT FOUND?

Most chefs, managers and owners think of carbon only in the form of the burnt-on stuff on the bottom of a pan, what some knives are made of, and charcoal. It's more than that. Carbon is the basis of life. Carbon is in each one of us. Almost everything that you cook and serve your guests contains carbon. The problem is generated when we use carbon in a form that produces greenhouse gases like petroleum or natural gas.

SO, WHAT EXACTLY ARE GREENHOUSE GASES, AND WHAT'S THE PROBLEM WITH THEM?

The sun heats the earth's surface every day. At night, the earth's surface cools and releases heat back into the atmosphere. Or at least it tries to.



Greenhouse gases are gases in the Earth's atmosphere that keep heat from escaping from the Earth's surface. Greenhouse gases act like a blanket around the Earth. Yes, we need some greenhouse gases or else our planet would be too cold. However, if we layer on too many greenhouse gas blankets, the

Earth gets too hot. Not all greenhouse gases are the same. Some stay for a long time in the Earth's atmosphere, like freon. Others break up much faster, such as methane, but are either more prevalent or hold in heat more.

The most prevalent of the greenhouse gases is carbon dioxide. Although there are some natural sources for carbon dioxide (such as volcanoes, plant decay, and even humans and animals breathing), the major primary causes of greenhouse gas are the burning of fossil fuels, like coal, oil and natural gas to generate energy to heat and cool our businesses, power the delivery vehicles that bring product to your establishment, fuel our cars and buses, and run our lights, coolers, and dishwashers.

IF ELECTRICITY IS GENERATED BY FOSSIL FUELS, WHAT'S THE PUSH FOR ELECTRIC CARS, ELECTRIC STOVES AND OVENS?

Well, we've got good news and bad news for you. The bad news is that, overall for the United States, about 80 percent of electricity is generated from fossil fuels. The good news is that, again overall for the United States, about 20 percent is generated from non-fossil

fuel sources such as wind power, water power, and solar energy. (Again, note this is overall for the United States. Many parts of the country vary greatly on this.)

More good news: the electrical kitchen equipment currently on the market is not the old clunky cooktops that your parents grew up with. The equipment is powerful, can generate a lot of heat and is controllable. The National Culinary Review has published many articles in the last several years on this very subject. If you still need some convincing, all the stove tops, ovens, kettles, tilt skillets, etc. on cruise ships are electric. And the really good news is that because there is no natural gas involved, in many jurisdictions, you don't need a hood. Talk about saving money while making the world a better place.

I HAVE HEARD TALK ABOUT MICROPLASTICS. WHAT ARE THEY, AND WHAT'S THE ISSUE?

Microplastics are plastics that are less than 5 millimeters, or .20 inches, or 1/5 of an inch or less. They are plastics that were made small or are breakdowns of larger pieces of plastics. They have been found everywhere on Earth. Several years ago, the authors of this article were walking across a crater inside a dormant volcano and found many microplastics. Microplastics have been found in the oceans, in the arctic, and have even been found in human breast milk.

The problem for us in the food service industry is that microplastics have been found in all sorts of foods, from vegetables and fruits to fish. Milk contains microplastics. It is not yet clear what the health effects of microplastics in food are. However, we need to realize that microplastics in food could be considered a chemical contamination and/or a physical contamination. In other words, you may soon have to consider microplastics in food the same way you now consider, and prevent, other chemical and physical things contaminating the products you purchase and the food you serve.



WHAT'S WRONG WITH STYROFOAM?

Let's start with production. Making Styrofoam uses a lot of water, which is in short supply in many parts of the country and produces a lot of greenhouse gases. Environmentally, some of the major impacts of Styrofoam occur after they leave your business. Many communities in the United States are not capable of recycling Styrofoam so it ends up in the land or worse yet, in the environment. Even if your customers put the cup or container into a trash can, they are often blown out. In landfills, in rivers or on streets, it basically doesn't break down. Instead, it breaks up into small pieces that, like microplastics, are found everywhere. Animals, including animals that end up in the food supply, ingest them.

The good news is that food service manufacturers have come up with some great substitutes or alternatives, and many are working on Styrofoam-like alternatives. Some of these alternatives are already on the market. The National Culinary Review and other culinary publications have focused on many of these alternative products.

WHAT'S THE PROBLEM USING PLASTIC, LIKE PLASTIC BOTTLES? I RECYCLE SO IT



SHOULDN'T BE AN ISSUE, RIGHT?

Recycling is good, and the members of the food service industry need to be congratulated on the leaps and bounds they have made in buying products that are recyclable and in getting those products

into the recycle containers. But..there are some things about recyclable products that you need to know:

1. Recycling is not 100 percent efficient. In other words, if you put 100 pounds of plastic into a recycle container, the recycling process will not yield 100 pounds of material that has been recycled. Think of it like "as purchased" and "edible portion." When you buy a 10-pound bag of clams, you don't end up with ten pounds of clam meat. When you recycle 10 pounds of plastic, you don't end up with ten pounds of recycled plastic material.
2. It takes energy...a lot of energy (and water) to recycle material, from when it is picked up at your back door to when it is recycled and ends up being used again. Much of the energy used for recycling produces greenhouse gases.

3. The amount of material, ranging from paper to aluminum to plastic, that is eligible for recycling that actually gets recycled is only about 5 percent in the United States. Ouch! Much of the product isn't recycled and much doesn't end up getting converted. Most of it ends up in the landfill, ocean or incinerated.
4. Many areas of the country only recycle a small amount of the products that can be recycled. This is often because of the economics involved. It's expensive to haul around large amounts of empty containers or paper that have been added to the recycle pile. In many places, the cost to get these products to the recycle centers and processors is more than what the centers and processors will pay for them. It's kind of like you selling a sandwich for less than the cost of the ingredients.
5. Recycling is great, but not all plastic materials are recyclable, and the number of times a plastic can be put through the recycling remanufacturing process varies depending on the type of plastic. For example, a sturdy reusable water bottle can be recycled many more times than a plastic bag. Unfortunately, many products that restaurants are using are the hardest or even impossible to recycle like plastic wrap, thin plastic bags and little plastic wrappers. And biodegradable containers, like utensils and cups made from corn, are biodegradable, yes, but not recyclable.

The better idea is to not use single-use products and to minimize plastic wrap and small condiment containers. (Remember the article "Saving the World and Making More Money One Straw at a Tim?") This may also be good for customer relations. As was mentioned in a previous article, you can use your environmentally friendly policy as a marketing tool. Many of your customers will gladly support you in your efforts. If you don't believe this, consider the extremes of many customers bringing in their own bags to stores and markets, to the many corporations that hire food service companies for catering or corporate dining that are requiring that the companies not use single-use products from water bottles to to-go containers.

WHAT IS ECO-FRIENDLY? WHAT IS A 'GREEN' PRODUCT?



In a nutshell, eco-friendly means that the product is not harmful to the environment. A 'green' product is a sustainable product that is designed to have a minimal impact on the environment. There are several good eco-friendly and green products available for

the food service industry. However, not all products are equally eco-friendly or green. As mentioned in previous articles, the best way to address this issue is to work with your vendors and suppliers to determine what products are the best ones. Again, you may be able to promote your use of these products as a marketing tool for your business.

DO I USE GREEN CLEANING PRODUCTS FOR 'GREENWASHING'?

Greenwashing has nothing to do with cleaning. 'Greenwashing' or 'green sheen' is something that you need to look out for from your competitors and from your vendors. Greenwashing is where a person, business or company misrepresents the sustainability, recyclability or environmental friendliness of a product or service. In the United States, the laws on this sort of marketing and advertising have not caught up with the demand for environmentally friendly products. As mentioned above and in previous articles, the best thing to do

is to have a good relationship with your vendors, particularly your prime vendor, to make sure that the products you are obtaining match up to the advertising behind them.

WHY DON'T WE EVER HEAR ABOUT THE HOLE IN THE OZONE LAYER ANYMORE?

During the late 1980s, scientists discovered that the ozone layer, a layer that makes up our atmosphere and is vital for keeping out harmful UV rays (the part of sunlight that causes sunburns and is known to cause skin cancer) was depleting and developing a hole. It was determined that CFC (a chemical mostly found in refrigerants) and aerosols (a component of older aerosol cans that has been phased out) were the main culprits depleting the ozone layer. The world quickly came together, and 198 countries ratified the original Montreal Protocol in 1987 phasing out and banning CFC and aerosols. At first, scientists thought that hole in the ozone layer would be permanent. Recent studies have shown that the ozone layer is healing, and in as little as 40 more years (2060s), the ozone might be completely repaired. This is an important example of the world coming together to recognize, act and solve a global environment issue.

Relevant to you in the food service industry? You bet! What it shows is that the changes that you make to your business, either voluntarily or because of regulation can make a difference.



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