

Food & Wine

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Today we introduce two bi-weekly columns: On Wine by Laurie Daniel, a resident of the Santa Cruz Mountains who has spent half of her 30 years in journalism writing about wine, and EcoChef by ecologist Aaron French, who is currently the head chef at the Sunny Side Cafe in Albany.

Lower your carbon — cholesterol may follow

WE LOVE TO HATE C-words when it comes to food. But the C-words of the past — calories, carbs, cholesterol — have been eclipsed by an overlord indifferent to weight loss, diabetes and heart disease. These are petty concerns for a villain undermining the health of our planet. The new C-word is carbon, and it's contributing to global climate change.

Yes, the low carbon diet is the new "It" in the food world. But what does it mean? This diet is about lowering not our cholesterol, but our carbon dioxide (CO₂) emissions. Carbon is the basic building block of life, and plants absorb it in the form of CO₂



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— one of the major greenhouse gases contributing to global climate change. So, the more plants, the more CO₂ absorbed, and the less global warming. But while livestock, and thus meat-based diets, leave a much greater carbon footprint than plants, there's more to the story.

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Fertilizing, picking, packaging and transporting agricultural products all cost energy, usually in the form of fossil fuels, meaning commercial food plants emit more CO₂ into the atmosphere than they can absorb.

By current estimates, 30 percent of greenhouse gas emissions are a result of our food system. Scientists have devised the Life Cycle Assessment to calculate the energy required to support a particular food — from inception to disposal. Some foods, such as meat and dairy, are well studied, while the LCA of others, such as processed foods, are less well understood.

Carbon dioxide is simply the most common greenhouse gas produced by our food system. Methane, produced by cows and sheep, is not nearly as pervasive, but it's much more powerful — 23 times worse at trapping greenhouse gases than CO₂. Nitrous oxide is also a byproduct of modern agriculture, largely from animal waste and nitrogen fertilizers. All of these greenhouse gases settle into the atmosphere where they create a "blanket" in the atmosphere that heats up the Earth. Greenhouse gases that are emitted into the atmosphere now will survive for decades if not centuries.

We know that plants produce lower carbon emissions than animal products — except hothouse-grown vegetables. While climate-controlled environments allow us to have year-round fresh local produce, they require large amounts of CO₂-producing energy to keep the plants cozy. And locally grown isn't always the lowest carbon,

Go low carb

To calculate the relative carbon impact of your food choices go to: www.eatlowcarbon.org. Here are a few tips to get you started on a low-carb diet.

■ Increase your intake of fresh, seasonal vegetables. Avoid hothouse-grown vegetables.

■ Reduce your intake of meat (particularly beef, lamb, and sheep) and consume less dairy. Eat them less often and/or in smaller amounts.

■ Buy and cook only enough to eat. More than 30 percent of food that is purchased at markets is wasted.

■ Reduce your total food miles. This includes buying local food but also how often you drive to go shopping. Shop for the week, not for the day.

■ Avoid eating processed and packaged foods.

■ Plant a garden. Nothing is as carbon friendly as something you grew yourself!

— Sources: Helene York and Julie Cummins

either. A study in England found that green beans flown in from Kenya had lower carbon footprints than local beans, largely due to differences between farming by machine and by hand.

The worse greenhouse gas offenders are the cows, sheep and goats that produce methane. These are also the animals that produce milk and cheese, making dairy a high carbon choice. The best meats, from a greenhouse gas perspective, are locally raised chicken and pork.

Seafood is a mixed bag. The seafood with the lowest

Online

For eco-friendly Pork with Blood Orange Glaze and Celery Root Slaw recipes, go to insidebayarea.com/FoodandWine

carbon emissions are shellfish, particularly when they're not flown in from the East Coast or another country. Fresh fish poses a bit of a conundrum. Many of the diesel engines in the small boats that harvest and transport small local catches are horribly carbon-inefficient, while the air shipment of fresh refrigerated fish has its own environmental problems. From a carbon emissions perspective, we are better off eating "fresh frozen at sea" seafood that can be packaged and transported more efficiently. Perhaps the worst offender of all is farmed fish, usually grown with artificial fungicides and grown with huge, emissions-producing floodlights. Though there are exceptions here, too.

As confusing as this all may sound, there are some easy shopping choices that will make a difference (see sidebar on Go Low Carb). Shopping at farmers markets is a good way to eat a low-carbon diet, as well. I've significantly lowered my personal carbon emissions by moderating my dairy intake.

Some food service companies are addressing carbon emissions head on. Bon Appetit Management Co., based in Palo Alto, serves more than 80 million meals each year in restaurants and corporate and school cafeterias. The company's move toward a low carbon diet, which takes place this year, was pioneered by Helene York, director of the Bon Appetit Management Co.'s foundation, back in

2005. "This was before 'An Inconvenient Truth,'" York says, "There wasn't very much awareness."

"Finding a science partner was a challenge," York says, because so few groups were working on the problem at the time. Now, after studying the issue for more than two years, they are implementing a low carbon diet throughout their entire operation.

A bonus of this program is how healthful the low carbon diet turns out to be. It closely matches many recommendations doctors and nutritionists are already making: fewer processed foods and more whole vegetables and grains. When chosen from local sources, it's a healthful diet for the planet and the person.

"Nutrition is No. 1 for me," says Susan Hunter, executive chef for Bon Appetit at Mills College. Hunter is experimenting with novel foods such as homemade nut milk as an alternative to dairy. "It's a whole new level of cuisine," she says.

Julie Cummins, director of education at the Center for Urban Education and Sustainable Agriculture, agrees. She recently organized a series of panel discussions about food and global warming.

Cummins is quick to point out that "carbon emissions are only one aspect" of a sustainable and healthy food system. "There are a lots of trade-offs," Cummins says. "Ultimately, it's about how good fresh food tastes."

Once people realize that making eco-friendly choices needn't involve sacrifice, you can be certain that low carbon food will be coming to a store or restaurant near you.

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