

Title: Going Green in the Foodservice Industry and Culinary Classroom  
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It is no longer possible to turn on the television, pick up any printed news source, or go on the Internet and not find a story concerning the Green movement, which is known by many names, including: conservation, sustainability, community-supported agriculture, climate change, renewable energy, green collar jobs, organic, and more. That's because the environmental movement is no longer the domain of so-called west coast, fringe, liberal, tree-hugging, sandal-wearing, flower power, hippie freaks. And when the *Wall Street Journal* dedicates a Journal Report (10/29/07) on "Handicapping the Environmental Gold Rush" to report on the race to profit off the Green movement it becomes abundantly apparent that the environmental movement has gone mainstream and now integral to the lives and lifestyles of most Americans. Some of which have become environmentally conscious by choosing to recycle, switch to compact fluorescent light bulbs, or purchase smaller fuel-efficient cars. While others have become Green out of necessity; like those faced with an imminent water shortage in Long Beach, California that is now under an Emergency Water Supply Shortage Plan to prohibit water use and pressing city officials to consider even more drastic water conservation measures in the future, such as a concept of "toilet to the tap," which takes waste water and turns it into drinking water that is perfectly safe to drink but conceptually leaves many understandably with a "bad taste in their mouth."

The concept and practice of sustainability is as old as mankind with early civilizations recognizing the need to conserve the abundant natural resources that were readily available to them in their time. Yet, somehow the practice of sustainability got lost along the way and morphed into the throwaway society we live in today that is comprised of countless American uberconsumers that truly believe that they are entitled to consume more than they honestly need to live a meaningful life regardless of the impact on the environment. Thankfully, the modern environmental movement started to take shape when visionaries such as Senator Gaylord Nelson persuaded President Kennedy to go on a five-day, eleven-state tour to promote conservation. Peace activist, John McConnell later picked up the conservation torch and prepared an Earth Day Proclamation to "remind each person of his right and the equal right of each person to the use of this global home and at the same time the equal responsibility of each person to preserve and improve the Earth and the quality of life thereon." In a fitting manner, the Proclamation was first recognized by San Francisco, the City of Saint Francis, patron saint of ecology, which designating the first day of spring, March 21 (Vernal Equinox) as Earth Day, which later became nationally recognized and celebrated by millions of Americans on April 22, 1970, and has been ever since.

So, what does Green mean? In a word it means, sustainability. One definition of sustainability, according to the World Commission on Environment and Development is the "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." But most definitions tend to define sustainability as: a) living within the limits, b) understanding the interconnections among economy, society, and environment, and c) equitable distribution of resources and opportunities. It does not mean, as some cynics suggest, that we return to the Stone Age and live in squalor; it simply means being an informed consumer and getting more out of life by consuming in a way that is not harmful to the planet that is our home.

### What's all the fuss about?

Although there are countless facts and figures that exist today extolling the dire fate that lies ahead if we do not move rapidly away from a throwaway to a sustainable society, I would like to focus on but one of the many issues that effects us all in the foodservice industry – oil. In his latest book, The Age of Turbulence (2007), Alan Greenspan states that "one out of seven barrels of petroleum consumed **worldwide** is burned on American highways: 9.5 million barrels per day in gasoline and 2.5 million

barrels per day in highway diesel in 2005, with the latter being consumed by the nation's eight million heavy trucks, which average less than seven miles to the gallon and by themselves consume as much petroleum as all of Germany." Given there is a limited supply of crude oil and gasoline refineries, the oil companies are now investing in renewable such as ethanol (thanks to heavy federal and state tax subsidies) to wean us from our energy dependence on foreign oil. Sounds good until Greenspan points out that it takes one bushel of corn to yield 7.2 gallons of ethanol, which means that if you took the entire 11 billion bushels of corn that were produced in the U.S. in 2006 it would yield 5.2 millions of barrels of ethanol a day, making it unrealistic to supplant the consumption of 9.5 million needed each day to run cars and trucks on American highways. Now consider the energy facts and figures, as presented by Bill McKibben in Deep Economy: The Wealth of Communities and the Durable Future (2007), that between 1910 and 1983 U.S. corn production grew 346 percent BUT required energy consumption by agriculture to increase by 810 percent to produce it. Now consider that it takes a half gallon of oil to produce a bushel of Midwestern hybrid corn and the future of ethanol as the means to rely less on petroleum-based energy sources becomes suspect.

So what does that have to do with the foodservice industry and you as a culinary instructor? The answer is everything. Case in point, the sharp move to ethanol has led to a historic increase in the price of corn with oil companies buying up crops to turn into ethanol, which has had a domino effect on the cost of running a restaurant, especially when considering the cost of feed (made from corn) has gone up making meat and poultry prices go up meaning restaurateurs are paying more to offer these proteins to the dining public and faced with the decision of raising menu prices or taking a hit on already razor thin profits. Given that corn syrup is a primary ingredient in many manufactured foods (from cereals to ice cream), there has been a corresponding increase in the cost of groceries that when coupled with rising energy prices make household budgets tighter and dining out less likely, which is not a good sign for a viable foodservice industry.

Are you ready to Teach Green?

When you get right down to it there are really two basic things that culinary educators and administrators need to do embrace the Green movement. The first is to become an avid conservationist; it can really be intellectually stimulating when thinking of ways to do more with less. The second is to then impart your knowledge of sustainability to your students so they in turn will be better stewards of the foodservice industry and planet.

As mentioned, the responsibility of imparting sustainability to students begins with those who teach and administer the nation's secondary and post-secondary culinary programs. To determine how you measure up as a conservationist answer some of the following questions concerning your consumption behaviors and the more "yes" responses the better. Have you switched all of your light bulbs to compact fluorescents? If you put up a Christmas tree this year did you purchase it from a local sustainable tree farm and light it with a string of LED's? Do you purchase a large percentage of your goods and services from local vendors instead of global corporate chains? Do you drink bottled water on rare occasions? Do you commute to work in a fuel efficient vehicle? Better yet, if public transportation is available do you use it? Do you recycle and/or compost your trash? The list of questions goes on and on.

According to Avy Cohen, Vice President of Earth Alive, one of the companies featured in the first Green Exhibit at the 2007 National Restaurant Show, there are five key things educators need to tell their students to prepare them to be sustainable chefs and/or restaurateurs. The first thing to teach students is to determine the true carbon imprint of the product(s) they purchase. When buying any product they should be taught to look beyond what is being purchased as an end result and evaluate how many steps it took to produce and then deliver the finished product(s) to their foodservice operation. Take water; restaurant patrons want to drink high quality water but perhaps it does not have to be shipped in from as far away as

Fiji, when a high quality water filtration system will do, like the one being used by the restaurant Grace in Los Angeles that sells carafes of “house-bottled” or bubbly water. McKibben, in his recent book Deep Economy, shares Cohen’s sentiment by reporting that the average bite of food taken by an American has traveled 1,500 miles to get to their lips and changed hands an average of six times along the way. In fact, a recent study in Iowa – the center of the agricultural heartland – found that the average carrot would travel 1,690 miles, from California, the average potato 1,292 miles, from Idaho, and average chuck roast over 600 miles, from Colorado to make what appears to the consumer as a relatively inexpensive meal but in reality takes a heavy toll on the environment.

The second thing to teach students is reduce the quantity of items being purchased to and make more of the items that are purchased. Culinary students have long been taught to make complete use of purchased items, such as using the bones of an animal to make a stock for soups, sauces, and gravies. Yet, what becomes of the bones after they have been used to make stock? Are they then being composted in the garden where the restaurant grows their own albeit limited selection of herbs? The same is true of all peelings from fruits and vegetables; they make for great compost, too. And cooking oil? Take the case of Jose Duarte, chef/owner of the successful Peruvian-Italian restaurant in Boston’s North End, who bought a vehicle from [www.greengreasemonkey.com](http://www.greengreasemonkey.com) that runs on discarded vegetable oil that he collects for free from area restaurants.

Third, students must learn that when thinking about a restaurant operation, at any stage (e.g., design, renovation, and operations) much comes into play to produce a meal for customers. Avy points to the example of European manufacturers of packaged goods that are required to retrieve the packaging that is used to ship their goods to customers to illustrate his point. I would like to add that it also means teaching students sustainable restaurant development and design based on the standards established by the U.S. Green Building Council, which is a “non-profit entity composed of leaders from every sector of the building industry working to...transform the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy, and prosperous environment that improves the quality of life ([www.usgbc.org/](http://www.usgbc.org/)). Although not as sexy, why not take students on one less culinary tour abroad and take them instead on a tour of restaurants that have been LEED certified using the Green Building Rating System, that “encourages and accelerates global adoption of sustainable Green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria.”

Fourth, make sure that students understand the precise meaning of ORGANIC, because it is beneficial to the environment and human health. To make this point, Avy recalls the great strawberry patch that his grandmother tended to grow great tasting berries without the use of pesticides that he has yet to taste since. So, to Avy, “the idea of ‘organic’ is basically a word that means the way our grandparents used to farm – without chemicals, steroids and any other additive and unnatural ingredients in the process of delivering products for consumption on our table for dinner. Which would put an end to those businesses that market products to wash away pesticide residue from fruits and vegetables, and eliminate yet another “widget” that was produced, packaged and shipped because the produce was not grown environmentally sound in the first place.

Fifth, students must be taught to look beyond the product(s) that are used daily to run a restaurant and determine the environmental impact on its usage. Avy Cohen’s example here would be a cleaning agent that requires one to consume hot water in order to clean; or cleaners that really do not do their job at cleaning leaving foodservice operation’s plagued with dirty grout lines on their tiled floors. This then requires them to either use harsh chemicals that are not beneficial to the environment or hire a contract cleaning company to perform the same task. Or there is the case of restaurants changing from drinking cups made from Styrofoam that end up in landfills to cups made from 100 percent corn that can be

composted, such as those available at the 23-unit Hurricane Grill based in Stuart, Florida, as reported in the *Nation's Restaurant News* special issue (October 1, 2007) on Bright Green Ideas.

Interestingly enough, while writing the final draft of this article a new energy bill was just signed into law by the U.S. federal government mandating higher fuel efficiency standards for automobiles, phasing out the manufacture of traditional incandescent light bulbs in favor of compact fluorescent light bulbs (CFL), more energy efficient appliances, and much more. The law also calls for a greater reliance on ethanol, which may lead to higher prices for foods and beverages and the cost of doing business in the foodservice industry, but time will tell. Although I have barely scratched the surface of the Green movement in this article, I hope it has emboldened those of you who have taken the lead and started to advocate teaching it in the classroom, kitchen, and community or give those of you who may still be on the fence reason enough now to start down the green path. Either way, it is becoming increasingly clear that one of the basic cooking skills that go hand-in-hand with knife skills is the practice of sustainability which all budding chefs must master if they are to be successful in the restaurant of tomorrow.

To learn more about sustainability and the sources used to write this article consult:

- ✓ Special issue in *Nation's Restaurant News*, Bright Green Ideas (2007, October 1), volume 41, No. 39, pp. 89 to 128.
- ✓ McKibben, B. *Deep Economy: The Wealth of Communities and the Durable Future* (2007). New York, NY: Times Books
- ✓ Edwards, A. (2005). *The Sustainability Revolution: Portrait of a Paradigm Shift*. BC, Canada: New Society Publishers.
- ✓ Earth Day: [www.earthday.envirolink.org](http://www.earthday.envirolink.org)
- ✓ The Green Restaurant Association [www.dinegreen.org](http://www.dinegreen.org)
- ✓ The Green Hotel Association: [www.greenhotels.com](http://www.greenhotels.com)
- ✓ Green Lodging News: [www.greenlodgingnews.com](http://www.greenlodgingnews.com)
- ✓ Feel free to use or revise the PowerPoint presentation that I prepared to provide students with an overview of sustainability in foodservice, lodging, meetings, and tourism by clicking on CET Online at [www.chefedtoday.com](http://www.chefedtoday.com)
- ✓ For those interesting, Earth Alive offers a complete of eco-friendly cleaning products, such as RapidAll, which is an all-in-one cleaning solution that has a patented slip safety prevention technology that helps maintain less slippery floors, that can be purchased and taught to students today to do your part to create and sustain the bright Green restaurant operation of tomorrow. Avy can be reached toll free at 877-489-8807, or visiting the company's website: [www.earthalive.ca](http://www.earthalive.ca)
- ✓ Here are more two more alarming energy facts that were reported in the *Wall Street Journal* (November 27, 2007, front section). It turns out that "today ships carry more than 90% of world's merchandise by volume, and the tonnage of cargo sent by ships has tripled since 1970. Those ships release more sulfur dioxide, a sooty pollutant associated with acid rain, than all the world's cars, trucks and busses combined, according to the International Council on Clean Transportation. The study also found that ships produced an estimated 27% of the world's smog-causing nitrogen-oxide emissions in 2005." The bottom line being that the planet – and those of us that live on it – is paying a heavy environmental price to quench our thirst for cheap imports that sustain artificially low prices.