Restaurant Business
STREET SMARTS FOR THE ENTREPRENEUR

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GOING GREEN FROM A-Z

How to lessen your restaurant's impact on the planet—and get PR points for doing it.

By Dana Tanyeri

What are all the hippest restaurants wearing this year? Green. It's the color of environmental responsibility and it's clearly hitting the mainstream as everybody from specialty coffee shops to burger chains search for ways to reduce their so-called footprint on the planet.

Restaurants, after all, consume a lot of water and energy, produce mountains of waste and, through their purchasing practices, make a major impact on food production methods back up the supply chain. Sure, there's some upfront cost involved depending on how bright a shade of green you're after. But while some strategies, like buying organic, can raise costs, others, particularly those that save water and conserve energy, can reduce them.

Many, in fact, are simple, painless changes you can make today. It could be as easy as replacing an incandescent light bulb with an $8 compact florescent version that uses a lot less electricity and lasts longer. Or installing a $100 spray valve that saves thousands of gallons of water every year.

From a pure public relations standpoint, going green is right up there with being trans-fat free. But there's more to it than just jumping on the trend train. Don't know where to start? Here are some ideas.

ALTERNATIVE ENERGY

Clean, green energy options like wind, solar, solar thermal and geothermal energy are catching on. Technologies have improved, supply is growing and tax credits and rebates from federal and many state governments can help offset the costs of conversion/installation.

New Jersey's Knowles family operates four dining properties, as well as a Marriott Residence Inn. The latter recently became the first hotel in New Jersey to go solar, according to Kurt Knowles Jr. "We discovered that the state would pay roughly 60 percent of the cost of installation," he says. "That took it from impossible to feasible." Today, photovoltaic solar panels on the hotel's roof generate 20 percent of the property's energy needs.

At Kung Food, a quick-service concept in San Diego, solar thermal panels on the roof collect and store heat used to warm water used for pot and pan washing. And in Denver, Marilyn Megenity, owner of the Mercury Café, recently invested $20,000 to install two 12-foot wind turbines and six solar panels atop her restaurant.

Before deciding to make such investments in alternative energy systems, get input from third-party auditors and consultants. Your facility may not be suited for solar panels; for instance, the roof could be too flat, too steep or not the right exposure. Also, find out what credits are available to help offset costs. If direct installation won't work, ask your energy company about Renewable Energy Certificates (RECs), which let you purchase clean, renewable energy that's generated by others and fed into the energy grid. For information on RECs, visit the U.S. Department of Energy's Website, www.eere.energy.gov/greenpower.

BIODEGRADABLE TAKEOUT CONTAINERS

Polystyrene foam and petroleum-based plastic takeout packaging may be relatively cheap and effective, but it's also a blight on the industry from an environmental standpoint. Styrofoam, for instance, is manufactured from chemicals that pollute the air and water, and it's virtually indestructible, reportedly holding up for more than 500 years in landfills. More than 100 cities across the country already have banned its use in foodservice.

Biodegradable products—paper-based or plastic-like containers made from corn resin, potato starch or sugar cane byproducts—disintegrate completely and safely when composted. “This is a simple way to make a change for sustainability,” says Greg Stevens, vice president of sales and marketing for Excellent Packaging & Supply (www.excellentpackaging.com), a Richmond, California-based wholesaler and distributor of biodegradable packaging. “Doing so has a big impact on both internal and external audiences. Employees are happy to be using eco-friendly products, and customers see companies trying to be good stewards of the environment.”

Stevens adds that prices on biodegradable products are increasingly competitive as supplies grow and costs to produce conventional petroleum-based plastics rise along with oil prices.

CLEAN CONDENSER COILS

Cleaning dirty air-conditioning and refrigeration coils can save 25 percent in operating costs and help prevent early compressor failure, according to Pacific Gas & Electric. New models make this maintenance step easy. Beverage-Air won a Kitchen Innovations Award for its coolers with easy, quick change-out access to the condenser and compressor. And Structural Concepts, another KI Award winner, goes a step further with Clean Sweep, an electronically controlled brush mechanism that automatically cleans condenser coils of dust and debris daily to ensure unrestricted air flow.

DIESEL CONVERSION

Some restaurants, including the Knowles’, are converting their vehicles’ engines to run on used fryer oil. “We ordered a conversion kit from a company called Greasecar for about $800,” Knowles says. “We’re running one of our trucks on filtered fryer oil and have proven to ourselves that the technology works. We’ll have 80 percent of our fleet running on fryer oil by the end of the year.”

Ed Rich, a Culver’s franchisee in Pleasant Prairie, Wisconsin, runs his hot water heater on used vegetable oil. He teamed up with INOV8 International (www.inov8-intl.com) to create a water heater application that runs off the restaurant’s spent frying oil. The system uses three-quarters of a gallon of oil per running hour, and it runs roughly six hours a day. That’s more than six gallons of oil the restaurant doesn’t have to dump in a storage tank and pay to have removed. Payback on Rich’s $11,000 investment is expected to be just over three years.

In addition to Greasecar (www.greasecar.com), two companies marketing conversion kits are Golden Fuel Systems (www.goldenfuelsystems.com) and Veg Powered Systems (www.vegpowered- systems.com).

ENERGY STAR

According to California-based Food Service Technology Center, 80 percent of the $10 billion annual energy bill for the commercial foodservice sector is expended by inefficient cooking, holding and storage equipment.

A voluntary labeling program that’s a joint effort of the U.S. Environmental Protection Agency and the U.S. Department of Energy, Energy Star makes it easy to identify products that have proved to be energy-efficient. It encompasses everything from building materials, to lighting, to commercial foodservice equipment. Qualified products can save as much as 50 percent over their conventional counterparts, according to the EPA.

FLUORESCENT LIGHTS, COMPACT

According to the EPA and DOE, compact fluorescent lights (CFLs) use at least two-thirds less energy than standard incandescent bulbs and last up to 10 times longer. They also generate 70 percent less heat, so they’re safer to operate and can cut air conditioning costs.

Michael Oshman, executive director of the Green Restaurant Association (GRA), www.dinegreen.com, a nonprofit group that helps restaurants go green, cautions that all CFL bulbs are not created equal. “Look for those with the longest life and the smallest quantity of mercury,” he says. “CFLs contain small amounts of mercury and some have more than others.”

GRASS-FED MEATS

Increased focus on sustainable agriculture is spurring a rise in grass-based farming, which shuns crowded feedlots, where animals eat a mostly grain-based diet. While grass-based meats aren’t yet widely available and can be pricey, they’re getting easier to source. Check out www.eatwild.com for state-by-state supplier listings.

HIGH-EFFICIENCY DISHWASHERS

Upgrading to a high-efficiency dishwasher can slash both water and energy use. Under the government's Energy Star certification program, qualifying equipment must meet rigid specifications: high-temp, under-counter machines can use no more than one gallon of water per rack, for example, and high-temp, single-tank conveyor machines can use no more than 0.7 gallons per rack. EPA estimates such machines save, on average, 79 million Btu and $613 each per year. By 2010, the agency estimates savings of 1.7 trillion Btu, 438 million gallons of water and CO2 emissions equivalent to taking 18,535 cars off the road.

INSULATION

Heating costs going through the roof? Your heat probably is, too. Check your insulation to make sure all is intact. If your building is old, consider replacing or supplementing the insulation with newer, more efficient and environmentally friendly products. Two newer green options are Icynene and BioBased, both of which are sprayed on and expand in seconds to 100 times their initial volume, getting into and sealing up nooks and crannies. They're free of ozone-destroying gases and formaldehyde and, according to their manufacturers, create a thermal envelope that results in up to 50 percent savings on energy bills. Such options cost more upfront than traditional fiberglass insulation, but eliminate the need for additional caulking and sealants, and result in significantly lower heating and air conditioning bills. A case study comparing the cost of installing Icynene insulation to fiberglass batt insulation in a 7,000-square-foot new residential building showed just over $4,000 difference.

JAVA MADE IN THE SHADE

Coffee produced in the traditional manner is grown on farms shaded by ecologically diverse forests. Trees protect the coffee plants, provide wildlife habitat, help maintain soil quality, reduce the need for weeding and aid in pest control, according to the Audubon Society. Organic matter from the trees reduces erosion and provides natural mulch, contributing nutrients to the soil and reducing the need for chemical fertilizers.

Newer industrial plantations with coffee grown in direct sunlight produce the highest yields per acre, and millions of acres of rainforest have been cleared for this purpose. That's an environmental no-no on its own, but Audubon maintains that with no tree cover these fields require extra chemical fertilizers and pesticides, use of machinery and a year-round workforce. They also deplete the soil, resulting in fields lying fallow. Check with your distributor to see what's available. Many broadliners now carry at least one brand of shade-grown coffee. Specialty distributors and local roasters are other sure bets. And check out the Rainforest Alliance, which has programs focused on sustainable coffee farming (www.rainforest-alliance.org).

KNOWLEDGE

There are a lot of resources out there to increase your environmental smarts. The nonprofit GRA, a treasure trove of knowledge, resources and recommendations, is a great place to start (www.dinegreen.com). Other helpful Websites are www.fishnick.com (Food Service Technology Center), www.pge.com/biz/ (Pacific Gas & Electric) and www.savinggreenbygoinggreen.com.

LOCAL PRODUCTS

According to Will McKibben, author and expert on global warming, most food travels 1,500 to 2,000 miles before landing on the plate. Buying local means less diesel fuel used and fewer CO2 emissions. And what's good for Mother Nature can also be good for the bottom line. When Eat 'n Park Hospitality Group, the Homestead, Pennsylvania-based family-style chain, launched its FarmSource program last year to significantly boost its sourcing from local farms, it did so in part to contain rising fuel costs. Brooks Broadhurst, senior vice president, estimates it costs $1,000 more to bring a tractor trailer from Florida to Pittsburgh than it did just a few years ago. Many state Ag departments, restaurant associations and extension offices offer promotional assistance and education to link local growers to foodservice buyers.

MANAGEMENT & MEASUREMENT

From purchasing specifications to recycling programs, nothing happens without top-down commitment and investment in products, processes and training to make going green work. "From a management standpoint, it's best to zero in first on just a few initiatives that are doable and that will generate positive results. Go for the low-hanging fruit and build confidence," suggests the GRA's Oshman. "Managers also should look hard at their motivations for going green," he adds. "Are they doing it primarily to try to save money, for the PR value, to boost

productivity and morale, or is it primarily a values decision? Strategy and implementation depend heavily on getting at those motivations upfront and fitting green strategies into the restaurant's culture." Once you start, track your investments and savings and share that information with employees. They'll be more zealous about changing their routines and/or products when they understand the impact.

NON-TOXIC NONFOODS

Just as buying organic, sustainable and grass-based foods are considered smart green moves, so too is specifying non-toxic cleaning supplies and chemicals, candle inserts, can liners, even hand soaps. Several are now available that are biodegradable, free of hazardous ingredients and are safe for people, animals and the environment. One line, endorsed by the GRA, is from Montreal-based Earth Alive. Its cleaning and degreasing solutions rely on natural grease-fighting properties of enzyme-producing bacteria to clean surfaces without petroleum-based chemicals or harsh synthetic compounds. For hand soaps, GOJO International recently introduced biodegradable GOJO Green Certified Foam Hand Cleaner suited for pumps or dispensers. The company says it's the first product of its kind to meet Green Seal and EcoLogo program certification standards.

ORGANICS

With mega retailers like Wal-Mart, multinational manufacturers like Kraft and giant broadliners like Sysco giving them major play, organics have transcended fad status. According to the Organic Trade Association, organic food sales in the United States were expected to reach $16 billion in 2006, representing more than 2.5 percent of total food sales. Moreover, the organic sector has been growing at a rate of 17 to 20 percent per year, compared to 2 to 3 percent for conventional food sales. Nonfood categories, from cleaners to linens, grew by more than 33 percent in 2005, according to OTA.

Health and environmental benefits are fueling the fire. Organic products are produced without the use of chemical fertilizers and pesticides, using sustainable farming practices that impact the environment in ways that range from greenhouse gas emissions to toxins entering groundwater supplies. A study by the Rodale Institute showed that if organic fertilizer were used in the major corn and soybean growing regions of the United States, annual carbon dioxide in the atmosphere could be reduced by 2 percent. The study also found that organic farming uses 50 percent less energy than conventional farming methods.

Those methods, while laudable from an environmental standpoint, are also more costly, keeping prices on organic products well above—often double—those of conventional products. Sales growth in the category, however, shows consumers are ready and willing to pay a premium for high-quality organics.

POST-CONSUMER WASTE

The devil is in the details when purchasing recycled paper products. GRA's Oshman says the ideal is to buy products not just labeled "recycled," but those made from 100 percent post-consumer recycled waste. "That tells you that they're made from products that got used, put into a recycling program and processed back into new products," he says. "Products labeled just 'recycled' are from pre-consumer waste, meaning they're made from paper that never reached the consumer—a mistake at the newspaper, an overrun at the factory. It went right from the industrial process back into the industrial process, so there's some marketing spin involved." He says products made from post-consumer recycled waste have six times the environmental benefit of their pre-consumer recycled counterparts. According to the Recycled Paper Coalition, many of these products are evenly priced with non-recycled paper goods, and when they do cost more, price differentials are small.

QUALIFICATION

If you're looking to make a statement with your green efforts and get the biggest PR payback, becoming a certified green restaurant or, if you're in the organic niche, a certified organic restaurant, may be for you. The GRA works with operators to provide customized, individual assistance toward qualification. Information on how and why to become certified can be found at www.dinegreen.com. On the organic side, Quality Assurance International (www.qai-inc.com) is the top certification organization.

RECYCLE

Most businesses already recycle paper, plastic, cans and bottles, but programs also exist for recycling everything from grease to metal to ink and toner cartridges. Operationally, recycling requires container systems and employee training. Knowles says his company pays extra for staff to double-check and sort through its recyclables before delivering them for payment. "We'd rather pay our people and commit to a great recycling

program than spend that money on waste removal," he says, adding that the company now makes money on its recycling program. Kung Food in California works both ends of the recyc

ling equation to become a "zero-waste" restaurant. "We recycle everything," says GM Mitch Wallis. "We're a QSR, so we have a lot of disposables, but they're all recycled and recyclable. Even our food scraps are given to nearby organic farms as compost."

SUSTAINABLE SEAFOOD

Buying only sustainable seafood could help thwart dire predictions that the world's supply will dry up by 2048. "At this point, 29 percent of fish and seafood species have collapsed—that is, their catch has declined by 90 percent," says Boris Worm of Dalhousie University in Halifax, Nova Scotia, lead author of a major study on which the predictions are based. The aquaculture community is in high gear establishing standards and groups such as the Marine Stewardship Council, in London, are encouraging operators to purchase only seafood certified as being sustainably managed. For information on species considered approved, visit Seafood Choices Alliance (www.seafoodchoices.com), Seafood Watch (www.seafoodwatch.org) or the stewardship council (www.msc.org).

TEMPERATURE MANAGEMENT

Food safety is usually the first consideration when it comes to temperature management, but energy savings are part of the equation, as well. Regularly checking temperatures manually is good, but automated systems that monitor temperatures and alert you via cell phone, PDA or laptop when they're out of compliance are better. And taking simple steps like keeping refrigerators clean and well organized, and installing strip curtains inside walk-in doors, go a long way toward conserving energy and ensuring safety.

UNBLEACHED PAPER PRODUCTS

Given a choice, go for brown paper products over white—but heed product specifications to make sure you are getting the greenest product you can find. According to GRA, the term Process Chlorine-Free (PCF) identifies recycled paper that's unbleached or bleached without the use of chlorine compounds. The term Totally Chlorine-Free (TCF) refers to virgin paper that is unbleached or bleached without the use of chlorine compounds, while Elemental Chlorine-Free (ECF) identifies paper that's free of elemental chlorine but may use chlorine compounds. "The best option to choose here is PCF," Oshman says. "It means that, while the paper may be white from previous bleaching, no new trees are harvested to produce it because it's made from post-consumer recycled waste, and no new bleach is added."

VENTILATION ON DEMAND

Do your kitchen hood fans work at full speed all day whether or not there's cooking going on? Most do and it adds up to about $2 billion in wasted energy per year, according to Melink, which manufactures "demand" ventilation systems. The company's Intelli-Hood Controls use a microprocessor and sensors that reduce fan speed during idle periods. The company claims the system saves up to $5,000 per hood annually.

WATER CONSERVATION

Installing high-efficiency dishwashers cuts water use, but there are other simple steps to take. For instance, make sure dishwasher racks are fully loaded, serve water upon request and install water-saving spray nozzles at the dish station. Conventional sprayers use up to three gallons of water per minute. A low-flow nozzle with a flow rate of 1.6 gallons or less per minute, used for three hours a day, can save 38,000 gallons of water and $1,050 per year.

XLERATOR HAND DRYERS

All electric hand dryers eliminate paper waste, so switching to electric is a good green move. Exel Dryer, which manufactures the GRA-endorsed XLERATOR hand dryer, says the cost of operating an electric hand dryer is 90 to 95 percent less than the cost of paper towels, including energy used and the elimination of labor costs. The XLERATOR gained GRA endorsement because it uses 80 percent less energy than conventional hand dryers. The company estimates a family restaurant using 30 cases of paper towels per year at a cost of just $1,000 could save roughly $950 per year by going electric.

YOUR IMPACT

Curious how big your own carbon footprint is? Check out online calculators. Based on your energy use, transportation and lifestyle, they calculate how many tons of CO2 emissions you produce. Three to try: www.conservation.org, www.carbonfootprint.com and www.climatecrisis.com.

ZEALOUS STAFFERS

Going green isn't a solo endeavor. Doing so takes staffers who are educated, trained and excited about getting the recyclables into the right containers, conserving water and energy, minimizing waste and embracing eco-friendly products and business practices. Oshman recommends incorporating Dining Green: A Guide to Creating Environmentally Sustainable Restaurants and Kitchens, a book sold on www.dinegreen.com ($10 per copy), into restaurant training programs. Other tactics used by GRA members include posting signs that track green initiative successes in kitchens and employee break areas, printing attention-getting information about environmental issues on paychecks and distributing green initiative updates to employees via group e-mails.
