



GO GREEN, SAVE GREEN: HOW TO MAKE YOUR KITCHEN MORE SUSTAINABLE

Reduce your kitchen's environmental footprint
and decrease costs.

TABLE OF CONTENTS

(Click a chapter title or the arrows at the bottom.)



CUSTOMERS CARE

When big-box retailers jump on the organic-foods bandwagon, you know sustainability preferences have reached critical mass. In fact, retailers that choose to offer more sustainable and organic choices are enjoying a tasty piece of a large \$39.1 billion pie.² And what customers go for in the grocery aisle, they expect to also see on the restaurant menu.

In a recent study by The Hartman Group, 48 percent of consumers are “sustainable receptive diners,” meaning they are health focused when it comes to making decisions about food consumption.³

While ingredient sourcing is perhaps the most-talked-about element of sustainability as far as food is concerned, “going local” is not always an option – particularly for large chain restaurants or facilities that lack the supply chain infrastructure to make incremental sourcing changes.



77% of Americans say sustainability factors into food-buying decisions.¹

CUSTOMERS CARE

The good news for restaurant managers is kitchen efficiency plays a key role in operating in a more sustainable, cost-effective manner. So while you might not be able to replace your menu to appeal to locavores, and feature free-range chicken and cage-free eggs in one fell swoop, you can make small changes to your back-of-house operations that add up to an overarching, eco- and budget-friendly mindset.

48%

of consumers are “sustainable receptive diners,” meaning they are health focused when it comes to making decisions about food consumption.⁴

65%

of consumers say knowing where their food comes from is of high importance.⁵

78%

of restaurant patrons would be likely to choose one restaurant over another if they knew its menu and operations were sustainable.



FOUR SUSTAINABILITY PRACTICES

Restaurants today have many opportunities to make more sustainable choices. From food sourcing and energy usage to water consumption and waste management, every touchpoint has an environmental impact. It's the small adjustments to your operations that can create positive change across the cutting board.

To adopt more sustainable practices, focus on these four areas:

- **Energy conservation**
- **Waste reduction**
- **Proper oil management**
- **Water usage**

RESTAURANT ENERGY USAGE

If you're not sure where your kitchen expends the most energy, consult your latest utility bill. The infographic to the right represents an average estimated breakdown of energy expenses.



ENERGY CONSERVATION

The quickest – and perhaps most obvious – way to reduce energy consumption is to invest in energy-efficient commercial food-service equipment earning the ENERGY STAR® qualification. The amount of money and energy saved by swapping out appliances varies, but the U.S. Department of Energy offers resources and calculators online at www.energystar.gov.

Saving energy is the top concern among consumers regarding restaurant sustainability.



ENERGY CONSERVATION

BACK-OF-HOUSE ENERGY-SAVING PRACTICES

Tips for curbing appliance-based energy use:¹⁰



COLD SIDE

Refrigerators and Freezers

- Turn off door heaters when possible
- Inspect and clean the coils
- Replace worn gaskets
- Set defrost timers

Walk-In Refrigerators and Freezers

- Allow air circulation
- Insulate suction lines
- Check refrigerant charge
- Clean coils
- Repair and realign doors

Ice Machines

- Keep the bin lid closed
- Inspect and clean the coils
- Install a timer and shift ice production to off-peak hours



HOT SIDE

Hot-Food Holding Cabinets

- Turn off overnight
- Use the timer

Steam Cookers

- Use timer mode instead of manual mode
- Reduce idle time
- Perform steam generator maintenance at regular intervals
- Maintain door gaskets

Fryers

- Reduce idle time and turn off backup fryers when possible
- Perform maintenance at regular intervals
- Calibrate fryer controls to operate at correct temperature
- Cover when not in use

[View More Hot Side Tips](#)

ENERGY CONSERVATION

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HOT SIDE

Griddles

- Reduce idle time and turn down temperature during off-peak hours
- Calibrate controls to operate at the correct temperature

Ovens

- Reduce idle time and turn off backup ovens when possible
- Fully load oven when cooking
- Inspect and replace gaskets, and tighten hinges when needed
- Maintain steam generators (combination ovens)

Broilers

- Reduce preheat time
- Turn off unneeded sections
- Reduce idle time

Ranges

- Maintain and adjust burners
- Use a lid
- Calibrate the standing pilot
- Reduce idle time

WASTE REDUCTION

If energy conservation is one side of the sustainability coin, waste management is the other. Although restaurant kitchens can make a big difference by consuming less energy, they must also produce less waste to ensure they're taking advantage of every opportunity to be more sustainable, starting with the following steps:

- Properly label trash and recycling receptacles.
- Reduce paper and cardboard waste by having it picked up for recycling.
- Source food responsibly.
- Use equipment that maintains proper temperatures to avoid food spoilage.

\$218 billion in food is wasted every year in the United States.¹²

\$1.6 billion per year is what restaurants save when adopting food-conservation efforts.¹³



PROPER OIL MANAGEMENT

Properly disposing of used cooking oil is an important step many restaurant kitchens overlook in their efforts to create a more sustainable kitchen. For example, pouring discarded cooking oil down a drain is a wasteful and detrimental choice that can cause major backups and cost restaurants thousands of dollars in property damage and FOG (fats, oil and grease) fines. A closed-loop automated oil management system can help resolve such issues and provide a more sustainable way to manage oil, including its accompanying waste and costs.

Restaurant Technologies helps reduce landfill waste by delivering fresh cooking oil in bulk and recycling used cooking oil into biodiesel – a fuel that not only repurposes oil otherwise going to waste but also acts as a more sustainable alternative to fossil fuels. For every gallon of fuel a Restaurant Technologies truck burns, it picks up more than 15 gallons of used cooking oil to convert to biofuel.

[Continued](#)



47% of the sewer overflows that happen annually are caused by fat and oil buildups.¹⁴

PROPER OIL MANAGEMENT

In 2016, Restaurant Technologies' automated oil management system helped eliminate more than 11 million plastic and 11 million cardboard containers from landfills, saving 8.8 million cubic feet of landfill space. Shake Shack, a Restaurant Technologies customer, eliminated packaging from the oil management process altogether – avoiding the disposal of 24,384 pounds of trash, the equivalent of what 124 dumpsters hold.¹⁵

Restaurant Technologies eliminates more than 11 million plastic jugs in a box, or jibs, and 11 million cardboard containers from landfills every year. By eliminating the number of jibs, the company is also helping to reduce the amount of wasted residual oil left in containers, which could cost restaurants more than \$500 per year.



WATER USAGE

The most efficient way to reduce water waste is to simply turn off the water supply. Obviously, that's not a realistic option. What is possible, however, is being more conscientious when it comes to daily water use in the kitchen. For example, you could install low-flow aerators in sinks or low-flow spray nozzles in dish rooms, or replace existing low-efficiency dishwashers, ice makers, steamers and combination ovens with appliances that are ENERGY STAR® qualified. Some dishwasher models can save up to three gallons of water per rack, whereas others capture hot-water vapor and condense it to heat the water used for rinsing.¹⁶ Additional tips are noted below:¹⁷

- Serve water to guests upon request.
- Install high-efficiency pre-rinse spray valves before loading the dishwasher.
- Fix all faulty/leaking faucets.
- Use high-quality dishwashing detergent to reduce the number of cycles needed.
- Regularly delime and clean the wash arms of your dishwasher.



SUSTAINABILITY STARTS SMALL

Whether you replace all your equipment with ENERGY STAR® qualified appliances tomorrow or start by actively recycling waste today, any effort you make to reduce your back-of-house environmental impact makes a difference. By examining your current state of sustainability, and identifying ways to bolster your efforts, you'll be able to work toward a more sustainable future in no time.

Sources:

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³The Hartman Group, "Restaurant Patrons Seek Fresh, Healthy and Sustainable Options," *Forbes*, June 26, 2015, <http://www.forbes.com/sites/thehartmangroup/2015/06/26/restaurant-patrons-seek-fresh-healthy-and-sustainable-options/#5ea04bc533d7> (accessed December 14, 2016).

⁴Ibid.

⁵"Evolving Trust in the Food Industry," Sullivan Higdon & Sink, FoodThink, March 24, 2016, <http://wehatesheep.com/foodthink/blog/new-white-paper-evolving-trust-food-industry/> (accessed December 14, 2016).

⁶"Efficient Commercial Kitchen Equipment," SustainableFoodService.com, <http://www.sustainablefoodservice.com/cat/equipment.htm> (accessed December 14, 2016).

⁷Ibid.

⁸Ibid.

⁹ConServe, National Restaurant Association, <http://conserve.restaurant.org/Learn/Conserve-Energy/Conserve-Energy-more> (accessed December 14, 2016).

¹⁰United States Environment Agency, ENERGY STAR® Guide for Cafés, Restaurants, and Institutional Kitchens, https://www.energystar.gov/sites/default/files/asset/document/CR%20ES%20Restaurant%20Guide%202015%20v8_0.pdf (accessed December 15, 2016).

¹¹Jeffrey Kiesel, "It's Not Easy Being Green," *Facilitator Magazine*, December/January 2016, <https://www.rti-inc.com/five-steps-to-improve-restaurant-sustainability/> (accessed December 15, 2016).

¹²Kara West, "Chefs get creative about restaurant food waste," *Environmental Health News*, August 10, 2016, <http://www.environmentalhealthnews.org/ehs/news/2016/aug/chef-food-waste> (accessed December 15, 2016).

¹³Ibid.

¹⁴Jennifer Welsh, "Here's the Terrible Thing That Happens When You Pour Grease Down the Drain," *Business Insider*, <http://www.businessinsider.com/why-cant-you-pour-grease-down-the-drain-2014-8> (accessed December 30, 2016).

¹⁵"Shake Shack: Restaurant's Strong Partnerships Are the Recipe for Success," https://www.rti-inc.com/wp-content/uploads/2016/03/ShakeShack_CaseStudy_March2016.pdf (accessed December 30, 2016).

¹⁶Jeffrey Kiesel, "It's Not Easy Being Green," *Facilitator Magazine*, December/January 2016, <https://www.rti-inc.com/five-steps-to-improve-restaurant-sustainability/> (accessed December 15, 2016).

¹⁷National Restaurant Association, "Reduce water waste to let resources flow," *Manage My Restaurant*, www.restaurant.org/Manage-My-Restaurant/Operations/Back-of-House/Reduce-water-waste-Let-resources-profits-flow (accessed December 15, 2016).

To further your sustainability efforts, read the e-book, ["Liquid Gold: How to Extend the Life of Your Oil,"](#) and [contact us](#) to schedule an on-site survey.

