How to Control and Reduce Waste

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Reducing waste that goes to landfill is good business—and improves your brand image. Learn how Nestlé is working toward Zero Landfill in its operations and how you can too.

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Zero waste to landfill—it's a goal that's been growing for the US food service industry in recent years. Diverting waste from landfill and incineration not only helps the environment, it can also enhance a brand's image among consumers and have a financial impact. In addition to a reduction in waste disposal costs, zero-waste policies can generate revenue from reselling recyclables, such as cooking oil. This in turn can reduce an organization's carbon footprint and could ultimately help corporate social responsibility credentials.

According to the US Environmental Protection Agency (EPA), the United States landfilled 136 million tons of municipal solid waste in 2014, the largest share of which (21.6%) was generated by food. Plastics were next, at 18.5% of the total, followed by paper goods (14.3%), and metals and glass (14.6% combined).

That's why the mantra of Reduce, Reuse, and Recycle is key here, and it's a waste management strategy that a growing number of forward-thinking food service operations have implemented, including many large colleges, hotels, healthcare institutions, supermarkets, and restaurants.

The EPA's Food Recovery Hierarchy is a good place to start. Although some levels may be undesirable or beyond the reach of certain operations, the general guidelines are thought-provoking.

Level 1. Source Reduction
Reduce the Amount of Surplus Food at the Outset

- *Use menu engineering* to better utilize ingredients, such as making meatballs with protein trim or using broccoli and cauliflower cores for soup
- *Offer smaller portions*, whether with lower-priced small plates on a restaurant menu or smaller portions in an all-you-can-eat college dining facility
- *Implement just-in-time cooking* to prevent overproduction
- *Conduct a waste audit* to determine what's going through the kitchen and what's coming back uneaten

Level 2. Feed Hungry People
Donate Uneaten Food

- *Donate nonperishable and unspoiled perishable foods* to local food banks, soup kitchens, pantries, and shelters
- *Maintain food safety standards* and other best practices when donating food
- *Check local resources* to connect with organizations serving those in need
- *Promote these activities* to the local press, on your website, and in social media
- *Take a tax deduction* if applicable

Level 3. Feed Animals
Divert Food Scraps to Animal Feed

- *Get information* by contacting your local solid waste facility, county agricultural extension office, or public health agency (some states ban food donation for animal feed)

Level 4. Provide Food Waste for Industrial Uses
Turn Wasted Food Into Renewable Energy

- *Send fats, oil, and grease* to the rendering industry to be made into another product, converted to biofuels, or sent to an anaerobic digester

Level 5. Compost
Reduce the Impact of Wasted Food by Feeding the Soil

- *Provide containers for compostables* where they're easy for the staff and customers, if applicable, to access them
- *Use compostable paper goods* and install signage instructing for their use at composting stations
- *Send compost to local farms* to grow more food

What Nestlé Is Doing

Nestlé has pledged to reduce food loss and waste (PDF) through measures like responsible sourcing and zero waste for disposal, meaning that no waste will go to landfill or be incinerated without energy being recovered from the process. The company has committed to achieving this in all its sites worldwide by 2020. As of 2017, Nestlé worldwide had achieved landfill-free status for 54% of its factories; in the US, 47 of 77 facilities have zero waste to landfill status.

The Nestlé Professional *Minor's*® factory in Cleveland, OH, became a zero-landfill facility in early 2015, but work began long before then to partner with suppliers and implement policies to reduce waste throughout the operation. From packaging to recycling, from efficient heating and cooling systems in offices and factories to timers on lights, Nestlé monitors and works to improve its manufacturing processes to minimize water consumption and lower carbon emissions.

The last step in the zero waste to landfill process was determining what to do with the materials left in the compactors after all other waste material was disposed. After much research, the company's environmental teams determined that the best way to eliminate that waste was to incinerate and turn it into energy.

The process burns the trash in a high-efficiency incinerator that produces almost no pollution. The heat from the incineration process produces steam which fuels generators and produces electricity which can then be sold back to the company's utility provider. While the process costs about the same amount as landfilling due to

increased transportation costs, it does serve to remove waste from landfills, which is better for the environment and worth the increased costs.

By the Numbers:

- With approximately 3.6 million pounds of waste in 2017, none goes to landfill
- Roughly 70% of all waste is recycled, composted, or bio-recovered; the remaining 30% is incinerated for energy recovery
- 1.3 million pounds of grease trap waste is used to generate bio-energy
- 400,000 pounds of recovered food waste and nonconforming goods are sent out for composting
- 866,000 pounds of material, including 400,000 pounds of pallets, 175,000 pounds of cardboard, and 153,000 pounds of plastic are recycled
- 1.05 million pounds of waste is sent to incineration facilities to generate recovered energy