



David Morgan

## What Gets Measured Gets Managed: How EPA is Helping to Reduce Food Waste

Autumn is our country's iconic harvest season, the time we celebrate abundance and food at the table. Our food system produces more than we can imagine—and, unfortunately, more than gets used. The abundance comes with a staggering amount of waste, and not merely of food thrown away from our tables. [In our last issue](#), we discussed the widespread problem of food waste and included examples of composting efforts throughout Massachusetts to curb its impact. In this issue, keeping the holidays in mind, we revisit the problem by focusing on the individual consumer and discussing things that we can all do at home to lessen our impact.

Food waste is a problem as intimate as our own habits in the kitchen and as abstract as global value chains. The effects, however, are very real and reflect not only our personal choices, but also an entire food production system that leaves millions of people hungry, huge amounts of food discarded, and distribution systems vulnerable. EPA estimates that more food reaches landfills and incinerators than any other material. The dump truck on your street is most likely full of discarded food, as are the trash bins and dumpsters. Its toll can be measured in many ways, including accounting for the resources required to produce the food that goes to waste. Nearly a quarter of all fresh water used globally was involved in food production yet 40% of all food produced in the United States is discarded. The use of land for agriculture has consequences for water quality, too, as it can lead to nutrient runoff or pesticide contamination. Rotting food [emits enough methane](#) to make landfills one of the top greenhouse gas polluters in the US. Economically, the domestic loss to food waste is [over \\$161 billion](#), while the UN pegs the global loss to consumers at [\\$1 trillion](#). But no matter the metric, food waste commands growing attention in environmental, business, and policy circles.

Food waste generation, prevention, and diversion are complex topics to address, but they share one goal: reducing impacts. Waste is a general category that includes food loss (waste generated before food is sold at retail), surplus (overproduction of food that gets discarded), and waste (scraps, spoiled food, and other consumer byproducts.) Technologies, policies, practices, and cultural mores influence the generation and treatment of food waste. The technologies we use to measure waste contribute to our understanding of the problem and how to prioritize responses to each issue; what gets measured gets managed. Policies regarding food handling, including sell-by dates and other safety limits, contribute to the loss and waste of foods otherwise fit for human consumption. Whether food waste is sent to a landfill or composting facility is up to local practice and the infrastructures developed to accommodate it. Similarly, culture dictates how food is handled, such as whether a bruised banana is saleable, or how long rice can be shelved before it is eaten. The constantly changing nature of food itself also plays a role through its growth, ripening, and decay, around which industries have developed whole management systems. Food waste is a mixture of these components, and which takes precedence is the first question toward minimizing the ill effects of the waste we produce.

EPA and its partners have identified several points in our food systems that result in food waste. Opportunities for waste reduction have been explored through the [Winning on Reducing Food Waste Initiative](#), a combined effort involving the EPA, US Department of Agriculture, and the Food and Drug Administration. A six-point federal strategy links the three agencies in coordinated action





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on education, measurement, supply chain management, and other waste-reduction activities. While the waste we generate in the kitchen is part of the problem, systemic inefficiencies from farm to retail make up the bulk of it. Solutions to these systemic issues are pursued with the aid of the private sector, including consortiums of restaurant, grocery, and food production businesses.

The [U.S. EPA Excess Food Opportunities Map](#) is an innovative tool to address the overproduction of food by institutions. Over one million food generators are mapped, ranging from educational institutions to manufacturing facilities. The map is an effort to supply the data needed to identify recipients of surplus food. Food banks and other conduits for food redistribution are listed, as are composting and anaerobic digestion facilities for repurposing waste.

Rethink Food Waste through Economics and Data (ReFED), a nonprofit partner in the Winning on Reducing Food Waste Initiative, recommends standardizing date labels as another industry-level fix. USDA and FDA have developed guidance for voluntary industry participation in a food labeling scheme to reduce waste. USDA has also worked to reduce the liability of food banks, state agencies, and other food recipients who are diverting waste from landfills by providing it for human consumption.

In our own kitchens, [the FDA advises small changes](#) like buying less with each shopping trip and setting an appropriate temperature for your refrigerator. No universal standard food dating practice yet exists, so examining food for spoilage is a best practice. You be the judge. The [FoodKeeper](#) app developed by USDA is designed to help.

Better management of the food system will aid all manner of environmental concerns, from greenhouse gas emissions to water quality improvements. No matter the scale, solutions to the problem of food waste are known and promoted by EPA and its partners. There are many ways to reduce food waste and many of these solutions start with lessening waste production at home by buying less food, pre-planning meals, and ensuring that as much food as possible is used or donated – all things to keep in mind as we enter the holiday season. Below is a list of the surprising and subtle changes that can help limit your food waste.

- Plan your meals and buy only what is needed to prepare them. Before going shopping, check to see what you already have on hand.
- Take a temperature check. Your fridge might be too warm, which allows food to spoil sooner. Make sure it is set to 40° F or lower, and the freezer to 0° F or colder.
- Give your food room to breathe. Overpacking the refrigerator insulates food against the cold. Let the cold air circulate around your food.
- Cover up. Put leftovers, partially used vegetables, and other sensitive foods in sealed containers.
- Keep track. Use [this storage chart](#) to know how long common foods will keep in your refrigerator and freezer.