

“Feed People, Not Landfills”

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Thanksgiving is by far my favorite holiday, primarily for one reason: the food. In my household, a typical Thanksgiving goes like this: my family goes overboard preparing turkey, mashed potatoes, stuffing, and, of course, the infamous green bean casserole - all of which is heaped on our plates and devoured. About halfway through the meal, however, I get to the point where I've eaten so much that I can barely breathe. When I can't stand to eat anymore, I get up from the table, scrape the remaining food from my plate into the garbage, and then head back for pie. We usually keep some of the food as leftovers, but they just sit in the fridge for a while before ultimately being thrown away. Until now, I hadn't realized the waste associated with this tradition.

When we scrape off our plates after indulging in a meal too large to finish, we rarely pause to think about the significance of our action. It seems perfectly normal: if we have food that is deemed unfit for eating, shouldn't it be thrown in the trash? Because this behavior is so routine, we have difficulty seeing the consequences of our actions. Food waste is a problem that is much bigger than we think.

In the United States alone, thirty to forty percent of the food supply is wasted, equaling more than one pound of food per person each day (Troitino, 2018). To get a better understanding of what this looks like, imagine the 92,000 seat Rose Bowl stadium as a huge serving dish. Now, imagine that serving dish filled to the brim with food - things like oranges, tomatoes, chicken, you name it. Finally, imagine all that food being trucked straight to a landfill. This is one way to visualize how much food we waste every single day in America (Jensen, 2015). Globally, one third of all food produced for human consumption is lost or wasted, which amounts to about 1.3 billion tons per year

(Gunders, 2012). This level of food waste suggests that curbing hunger isn't a matter of producing more food, as much as it is better preserving and distributing the food that is currently being produced.

To determine how to fix this problem, we first must recognize why it's happening. Food waste refers to the decrease of food in all stages of the food supply chain - from initial production down to final household consumption (Food and Agriculture Organization of the United Nations, 2016). Starting out in farming phase, food may not be harvested due to damage caused by pests, weather, disease, or, more recently, a lack of labor. Even fields that are harvested often have food go to waste due to selective harvesting and culling, leaving behind any produce that will not meet the minimum quality and aesthetic standards put in place by retailers (Gunders, 2012). One packer of citrus reported that between twenty and fifty percent of the produce he handles is unmarketable, yet perfectly edible (Bloom, 2011). This statistic suggests that appearance plays a major role in the selection of our food. Once out of the field, the produce heads to processing facilities where most losses are generated through trimming both edible and inedible portions of the food. In processing potatoes, for example, it is estimated that only fifty percent of the potato actually makes it out the door as a finished product (Gunders, 2012).

At the retail level, our food is then exposed to numerous circumstances that could result in waste. This includes expectations of cosmetic perfection, overstocked product displays, pack sizes that are too large, damaged goods, and expired "sell by" dates. The food that isn't purchased in a timely manner is either donated or, in most

cases, thrown away. Rotisserie chickens, for example, are often thrown away and replaced after as little as four hours on display (Bloom, 2011). Restaurants aren't immune to food waste either. Kitchen waste, portion size, and pressure to offer extensive menu choices are among the factors that contribute to food waste at the service level. Additionally, fast food restaurants must adhere to strict time constraints. Places like McDonald's have to throw away any burger after sitting for fifteen minutes and french fries after just seven (Christensen, 2018). Although retail stores and restaurants are affected most by public criticism, they are not the only parties guilty of food waste.

We, as consumers, tend to waste more than our fair share of food as well. For the average U.S. household of four, wasted food translates into an estimated \$1,300 to \$2,300 in annual losses (Bloom, 2011). Most of this stems back to an undervalue and lack of awareness of food. Cheap food available in mass quantities leads consumers to devalue fully utilizing what they purchase. This means that food often spoils easily in households, given that properly storing food and purchasing only what we need seems rather unimportant. Also, many consumers throw out perfectly edible food due to confusion over food date labeling and deciphering what is safe to eat. In total, consumer actions and demands account for a large majority of wasted food.

Where does all this food end up? Of all the food lost from farm to fork, only three percent is composted (Food and Agriculture Organization of the United Nations, 2016). Over ninety-five percent of uneaten food ends up in landfills. In fact, food now makes up the single largest component of municipal solid waste (Gunders, 2012). This is an issue

because the decomposition of uneaten foods accounts for twenty-three percent of methane emissions, one of the leading greenhouse gases known to cause global warming (Bloom, 2011). Not to mention, the food that's rotting in landfills could have been used to help feed the over 42 million food insecure Americans or the 815 million hungry people around the world (Food and Agriculture Organization of the United Nations, 2016).

What can we do? In 2015, the USDA released a goal for the United States for a fifty percent food waste reduction by 2030. (USDA, 2016). While setting this goal was a step in the right direction, there is much to be done in order to reach it. As agriculturists, we need to revise quality and aesthetic standards, expand secondary markets and alternative outlets for off-grade food, and come up with innovative ways to use excess peelings or scraps. Retail stores could use discount shelves, analyze the need for products before placing orders, and donate excess foods before they go bad. As consumers, we need to end this culture of consumption. We can start by being more conscious of our food purchases, putting our leftovers to use, and gaining a better understanding of food date labeling. Above all, we need to educate the public and generate awareness about food waste at all stages of the food supply chain. Although the issue is complex, I'm confident that this generation of innovative thinkers can put an end to food waste and find a way to feed people, not landfills.

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