Big Picture Thinking

The Role of Packaging in Reducing Food Waste
Introduction

According to the United States Department of Agriculture (USDA), approximately 40% of food is not consumed. The annual amount of this waste is staggering: 36 million tons, worth $162 billion.

Much of this waste is fresh food purchased for home use: American families throw away up to 40% of the fresh fish, meat, and poultry; 51% of the dairy products and fruits; and 44% of the vegetables they purchase. Significantly, meats and dairy products, especially cheese, are also among the most environmentally intensive to produce, store and transport.

While there are many reasons for household food waste in the developed world, one factor accounts for about two-thirds of the problem: spoilage from not being used on time. (For reference, the 33% of food waste not due to spoilage is due to cooking or serving more than can be eaten during a meal.)

Minimizing Food Waste: The Big Picture

People intuitively understand the primary job of a package: Contain the product, making it easy to carry and handle. But there are other important roles that packaging plays, especially when it comes to ensuring a fresh, safe, and nutritious food supply. Understanding these additional benefits - related to both product AND package - is how Big Picture Thinking is applied.

In fact, when it comes to alleviating spoilage and other forms of food waste, packaging is so critical that Helén Williams and Fredrik Wikström, life cycle assessment researchers at Karlstad University in Sweden, state that, “Packaging that is altered in order to reduce food losses can lessen the total environmental impact and lead to large environmental gains, even if it is necessary to increase the environmental impact from the packaging itself.”

These respected researchers can make this rather counterintuitive claim because a small amount of packaging conserves and protects the much larger quantity of valuable resources it contains:

Efficiently Contains & Protects

Take ground beef in a tray covered with protective film. The package accounts for only about 7% of the total product and package weight. The same efficiency exists for ready-to-eat salads in bags: The package accounts for only 5% of the total weight. Thus, when you consider both the economic and environmental cost of producing and distributing food, a little bit of protective packaging is actually a very wise investment.
Maintains Freshness, Nutritional Value & Safety
Packaging does more than simply “wrap up” foods. It maintains freshness so that the nutritional value, taste, and shelf life are prolonged. For example, most modern fresh food packages act as moisture and oxygen barriers, maximizing freshness while reducing spoilage, bacteria, and mold formation. The latest packaging innovations even include technologies that prevent or reduce contaminants, increasing shelf life while maintaining nutritional value, potentially reducing food waste by 20%.10

Provides Critical Storage & Usage Information
How should cheese or sushi be stored to keep it fresh and tasty? How long before this piece of salmon or steak becomes inedible? Can this fruit be frozen for later use? What can be added to these salad greens to make for a complete, nutritious and tasty meal?

All of this information is usually available on the package. By ensuring that you have the knowledge needed to serve fresh food at the peak of flavor and nutritive value, packaging helps reduce waste by increasing the amount that is actually eaten.

Delivers Portion Control and Resealability
Individually wrapped chicken breasts, squeezable yogurt tubes, and resealable bags of carrots are very convenient. But these packages also help to reduce food waste. First, they ensure that the portions not eaten remain fresh and protected, ready for use at a later date. Just as importantly, they also help from inadvertently serving too much food at one time, which can lead to discarded food.

Consumers appreciate these benefits. According to a recent Mintel study, 81% of consumers say they would choose resealable packaging over nonresealable packaging, and more than half (54%) would pay more for packaging with added features such as being resealable or providing portion control.11

Pre-Cut and Washed Foods: A Hidden Waste Reducer
Pre-cut carrots and celery in bags. Sauerkraut in jars. Artichoke hearts in cans. Besides providing protection, packaging reduces waste by delivering only the parts of these products that are ready to eat. There is no need to dispose of the inedible stems, stalks, husks, and peels - up to 85% of the plants.12 Instead, these parts are ground into animal feed, converted into energy, or composted by farmers and food processors prior to packaging, creating natural fertilizers, soil conditioners, and moisture barriers.
To Summarize...

Food packaging provides product protection, shelf life extension, freshness, nutrition maintenance, and portion control. A little bit of packaging thus reduces waste by conserving the high value nutritional, economic and environmental resources contained in, and delivered by, its contents.

That’s Big Picture Thinking!

Something Else to Think About...

- Industry continues to develop new fresh food packaging that can further improve product shelf life and reduce waste. These efforts can deliver enormous benefits regarding our ability to sustain healthy lifestyles and a healthy environment.

- Packaging is part of a much bigger picture – creating a sustainable long-term food supply. As such, future packaging decisions should consider a variety of facets that help minimize overall environmental impacts related to food packaging and food waste. These include packaging material choice and sourcing, packaging that facilitates reuse or recycling, and innovative packaging designs that optimize the amount of packaging while ensuring consumers of a fresh, safe and economical food supply.

- There are many easy ways for consumers to help reduce fresh food waste, saving money and natural resources: Plan meals and menus ahead of time. Create a weekly list, shop from it, and stick to it. Buy only what your family will eat. Check date codes often. Keep perishable foods visible at the front of the fridge. Serve smaller portions. Simple!


2 http://www.epa.gov/foodrecovery/.


10 “6 packaging and education strategies to reduce food waste.” Food Dive, July 18, 2016.
