



Frequently Asked Questions and Comments About Foodservice Packaging and the Environment

Every week the Foodservice Packaging Institute and its member companies receive inquiries and comments from consumers, students, academics and foodservice operators asking for information about foodservice packaging in the environment:

- ◆ *Which package or packaging material is more “environmentally-friendly?”*
- ◆ *Are foodservice packages recyclable?*
- ◆ *Why aren’t all foodservice packaging products biodegradable?*
- ◆ *Are foodservice packages made from corn starch preferable to those made from other materials?*
- ◆ *Foodservice packaging is filling up the landfills, what are you doing about it?*

This document seeks to address the most frequently asked questions about foodservice packaging products in the environment, and their impact on the world in which we live.

Our nation’s landfills are filling up with foodservice packaging products, especially those made from polystyrene: shouldn’t we stop using these items?

According to Franklin Associates, the consulting company that characterizes municipal solid waste for the U.S. Environmental Protection Agency, paper and plastic foodservice packaging accounted for just 1.2 percent of the country’s municipal solid waste by weight in 2006. And, Franklin calculated the amount of polystyrene foodservice packaging in municipal solid waste at half of one percent. These percentages have remained relatively constant over the last decade.

What this means, of course, is that almost 99 percent of the municipal solid waste stream is composed of items that are **not** foodservice packaging, or polystyrene. Such a minor contribution to municipal solid waste is hardly a reason to stop using single-use packaging items and the public health and sanitation benefits they offer to society.

Our streets, highways and beaches are strewn with foodservice packaging items. What is the foodservice packaging industry doing about it?

Litter composition studies conducted in 2006 in California, and previously in many other states across the country, have found that foodservice packaging items are the largest component (20 to 22 percent) of our nation's litter stream. The other 80 percent of litter is composed of everything from cigarette butts to candy wrappers to newspapers.

The studies referenced above also have provided a wealth of information on who litters, and where they do it. The prime litter "culprit" is a 16 to 25 year-old male, living in an urban environment, with a car. That person casually litters our city sidewalks, and purposefully throws trash from his moving automobile.

For many years the foodservice packaging industry has joined in supporting state and local efforts to change the behavior of our nation's litter bugs. The key is making their behavior socially unacceptable, and that is a long, expensive, and arduous process involving public education and awareness.

I go to the beach a lot, and I see a lot of foodservice packaging litter, especially pieces of polystyrene. What's with that?

Recent visual litter analysis (a formal, scientific litter-counting methodology), conducted in California and paid for by the foodservice packaging industry, found that, indeed, small pieces of polystyrene and other materials are readily visible on some beaches.

The litter study experts cite three sources for this litter: deliberately-littered beach picnic items left on the beach for some one else to pick up; accidentally-littered items that are properly stowed in trash cans and then blown out of the cans, or pulled out of the cans by seagulls; and items that were littered miles from the beach and washed through the urban storm water system out to sea and then on to the beaches with the tide.

The cure for the first instance is more litter awareness and public education about litter at the beach (and perhaps citations for offenders); the second instance can be addressed by fixes as simple as lids for open trash cans, or better designed lids for existing ones; and the solution for "traveling" litter is improved catch basins and finer storm water screens, both of which are being implemented by local governments in many coastal communities.

Wouldn't requiring all foodservice packaging to be biodegradable be the answer to the country's landfill and litter problems?

First, let's talk biodegradability and landfills. In the mid-1980s a University of Arizona archaeologist "mined" public landfills throughout the U.S. and Mexico. He was conducting studies of local lifestyles and economies by examining what people threw away. What he found revealed a lot about biodegradability in landfills.

Using a bucket auger, the professor drilled down through the various layers of detritus. He found preserved hot dogs and buns that been in the landfill for 10 years. He found paper items that were perfectly readable after 20 years. How could he tell how long items had been buried? He could read the dates off of the newspapers found next to them!

The professor's surprise discovery was that modern landfill techniques entomb many of the materials placed in them. Why? Because modern landfill construction frequently seals off materials from light, water, oxygen, bugs and bacteria necessary to degradation.

Therefore, just because a product is made of a "biodegradable" material doesn't necessarily mean it will biodegrade in a modern landfill. And even when such items do biodegrade, they create liquid run-off (leachate) and methane gas that has to be collected to keep from polluting groundwater and the air.

If packaging doesn't degrade in a landfill, why not require that it to be recyclable as a way to solve our landfill problems?

The biggest barriers to recycling foodservice packaging items are public health and economics.

Once people have used foodservice packaging, it is contaminated and thus is unfit for recycling. In use, the packaging comes in contact with human saliva, hand-borne bacteria and, possibly human viral agents.

That's why the products were invented: they are the best way to prevent the spread of contagious and infectious disease in mass feeding environments.

The economic barrier to recycling foodservice packaging is that of collection costs... and the value of the scrap material.

Seventy percent of retail and commercial food sold in foodservice packaging goes through the drive through window, or out the front door of the foodservice establishment. Once it leaves the foodservice operation it becomes widely dispersed and discarded. Some of it is discarded at work; some is discarded in municipal or restaurant trash bins; some finds its way home and goes out with the daily garbage. To collect it from all those disparate places and reassemble it for recycling is near impossible and economically improbable.

Even if a workable collection system were in place for the used packaging, the collected material would then compete in a recycled product marketplace where the cost of virgin material is significantly lower than that of its recovered counterpart. (All the manufacturing costs it takes to make a product in the first place are added to the collection, transportation and reprocessing costs of making a recycled product.) Only foodservice packaging materials with a very high scrap value, like aluminum, can compete economically in today's recycled products world.

Isn't choosing "environmentally-friendly" packaging then the best way for consumers to help protect the environment?

The challenge: "environmentally-friendly" is in the eye of the beholder. Such designation often pits one subjective value against another. For example, what's more "environmentally-friendly," products from a plant that uses coal-fired energy that affects the air, or products from a plant that uses hydro power that affects the fish?

The fact is, all manufacturing facilities have an environmental footprint. And each facility's footprint is unique and different even from that of a "sister" plant in the same company or the same industry.

Because of this, trying to figure out whether one material or product is environmentally better than another ("You want paper or plastic?") is an exercise best suited for a character in a *Dilbert* cartoon.

But what about these new biopolymers, the plastics made from corn or cane sugars that are biodegradable? Aren't they more environmentally-friendly?

The new biopolymers are great materials given their limitations; at present they are limited to cold food and drink applications, and require careful distribution and handling because of their relatively low melt temperatures. Nonetheless, the promise of these new materials is encouraging.

As for the environmental footprint of the biopolymer harvesting and manufacturing process, not much is known publicly. Therefore, it is premature to make any statement about a biopolymer's environmental "preference" to other, more mature foodservice packaging materials. What we do know is that these materials are highly suitable for disposal to a municipal or commercially-operated composting facility. The lack of such facilities around the country is a challenge these new materials must overcome.

I read about a report by an environmental group that says plastic pieces in the ocean are killing fish and marine life. What is the industry doing about that?

Over the last couple of years a number of reports have appeared about the presence of plastic items in the oceans. Among the items cited are fishing nets used by industrial fishing fleets; buoy shipping lane markers that break away in rough seas; trash bags dumped by ocean vessels of all types, and, further closer to shore, trash items that are swept out to the ocean by urban storm water systems.

This type of marine debris is one of the most vexing problems that the plastics industry faces because much of it is beyond industry's control: how do you stop an ocean buoy from slipping away?

However, there are a number of instances where the plastics industry can, and does, exercise stewardship. One is an industry program to educate manufacturers in ways to keep tight control on plastic resin pellets that escape during off-loading at their facilities. This has been a major point of emphasis in the industry, and steady, measurable progress is being made to put in place systems to control or recapture such resin particles.

As for trash, the problem is that rigid packaging of all kinds is discarded into the litter stream. As discarded items are swept by rain into local storm drain and sewer systems, they get broken into pieces. And small pieces then can slip through trash screens and find their way into the ocean.

Industry is still puzzling on the best way to help localities deal with this irritating problem. The "simplest" solution, of course, is to get people to stop throwing packaging and other items into the litter stream. Litter awareness and reduction is an important concern and issue for all of the industries whose products are found in the litter stream (newspapers, snack food packaging, beverage containers, advertising flyers, cigarette butts, retail bags and foodservice packaging, to mention a few.)

In places like California representatives of the foodservice packaging industry have met with local government officials to determine what actions and activities could be undertaken by industry to help communities bring an end to littering and litter. We have learned that developing and implementing effective litter reduction solutions will be an ongoing challenge for industry and government for many years to come.



If you have additional questions about single-use foodservice packaging, please send us an e-mail to fpi@fpi.org or call us at (703) 538-2800.