How Major Retailers are Redefining the Sustainable Packaging Game

As consumer preferences continue to shift, with more people seeking eco friendly, sustainable packaging in the products they buy, some of the world's biggest retailers are taking note. Both Walmart and Amazon, for instance, have launched comprehensive packaging sustainability initiatives.

Walmart's Packaging Scorecard

Just over a decade ago, Walmart introduced their proprietary Packaging Scorecard to companies throughout their supply chain.

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Working with guidelines established by the Packaging Sustainable Value Network, a group of leading companies in the packaging industry, Walmart's Packaging Scorecard identified nine key metrics to consider when designing and creating eco friendly packaging:

1. Greenhouse gas/CO2 generation per ton of packaging produced
2. Material value
3. Product-to-package ratio
4. Cube utilization
5. Transportation
6. Recycled content
7. Recovery value

8. Renewable energy use
9. Innovation

Each of these environmentally relevant metrics is represented as a percentage of 100 possible points for rating existing packaging, developing new packaging, and comparing one's own environmentally friendly packaging solutions to those of other companies.

Walmart doubled down on their sustainable initiatives in 2016 when they released their Sustainable Packaging Playbook – which focuses on optimizing packaging design, securing sustainable material sources, and supporting recycling – to help guide companies toward methods for improvement.

Amazon's Certification Guidelines

Walmart is not alone in recognizing the importance of sustainable packaging, both for the environment and manufacturer ROI. In 2008, Amazon, the world's largest online retailers, introduced their own eco friendly packaging initiative, the Frustration-Free Packaging Program.

Frustration-Free Packaging takes a more consumer-oriented approach – its main goal is to ease "wrap rage," the frustration that consumers often feel when faced with excessive amounts of packaging materials or difficult-to-open designs.

The program aims to drastically reduce the number of boxes used in shipping, as well as packaging materials in general, such as clamshells, wire ties, and plastic bindings. By putting a focus on material reduction and recyclability, Frustration-Free Packaging is also eco friendly packaging.

Taking the Eco-Friendly Packaging Leap

Manufacturers large and small, and from all types of industries, are increasingly adopting the sustainable packaging requirements set into motion by mega-retailers like Walmart and Amazon.

These practices are often considered to be cost-ineffective for manufacturers, but with the right amount of research and analysis, environmentally friendly packaging practices can actually lead to significant cost savings.

Have you been considering making the switch to eco friendly packaging? Download Sierra Coating Technologies' free **eBook, "Taking the Eco-Friendly Packaging Leap,"** to learn how to take the first steps and explore the unique benefits of various types of packaging, such as recyclable and compostable. Or, to discuss your unique packaging needs with an expert, contact the team at Sierra today.

Download the eBook

The Rise of Single-Serve Food Packaging

As consumer preferences shift and technologies advance in both the food and beverage and the food packaging industries, smaller-sized packages are becoming more popular. Thanks to an increased focus on health, convenience, and environmental sustainability, single-serve and miniature food packaging solutions are in high demand.

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With consumers now placing more importance on dietary intake – having a better understanding of what they're eating and how much they should be eating – single-serve packaging is becoming the go-to choice for many health-conscious consumers.

Ease of use is another factor; in today's fast-paced world, consumers desire portability, the ability to eat on the go, kid-friendliness, the ability to meet TSA regulations, and so on.

And finally, as environmental and sustainability concerns mount, steps are now being taken to reduce the risk of food spoilage while minimizing waste.

Companies Driving Demand for Single-Serve Food Packaging

The fast food industry has long depended on miniature packaging for on-the-go, portable condiments, salt, pepper, and other items. More recently, changes to kids' meals, such as the inclusion of fruit as a side-dish option, are necessitating new miniature packaging solutions.

Traditional retail food producers are also beginning to require single-serve food packaging solutions. Yogurt and beverage producers are introducing portable standup pouches, while producers of items like jam and nut butters are increasing the number and variety of single-serve cup options. Companies in the spice industry are also expanding their product offerings to include individual and premeasured retail options.

Meal-kit services like Blue Apron, Plated, and HelloFresh are some of the largest – and newest – drivers of the single-serve trend in food packaging, as these companies depend on miniature and single-serve packaging to effectively portion

out ingredients for consumers. Using this type of packaging for meal-kit services allows for optimal portability and intuitive consumer use.

How Companies are Meeting the Demand for Single-Serve Packaging

Food and food packaging companies are now pursuing various methods to meet consumers' desire for conveniently packaged food. The specific solutions used, however, depend on the food product itself.

For instance, creating snack-sized packaging – or "snackifying" products – is an increasingly popular technique.

Snack-style packaging designs can be used for a range of products, such as single-serve spices and condiments for at-home use. This type of packaging is novel, convenient, and can help with portion control for consumers with health and dietary concerns.

Nutrition information labeling is also becoming more and more important; in addition to meeting FDA labeling guidelines, food packaging must also appeal to consumer sensibilities – a recent report showed that 61% of grocery shoppers believe that reading food packaging labels is an important step in maintaining health.

The "rightsizing" or downsizing trend in food packaging makes

it easier for consumers to portion control and understand the nutritional value of the foods they're purchasing.

Because producing miniature and single-serve packages inevitably increases the volume of packaging material used and ultimately disposed of, many companies are also focusing on environmentally friendly packaging initiatives.

To reduce waste and meet the growing consumer demand for sustainable business practices, many food packaging companies are offering compostable and even biodegradable packaging products, which are commonly produced using polylactic acid (PLA) based materials.

Partnering with an Experienced Contract and Toll Manufacturer

As demand rises for convenient, sustainable, and healthy food options, food and beverage producers and packaging companies are consistently working on innovation solutions to meet those demands.

To do so, companies often must partner with experienced contract or toll manufacturers; these experts can offer a wide range of services to help food-industry and food-packaging businesses create reliable miniature and single-serve packaging products.

Sierra Coating Technologies is proud to provide industry-leading contract and toll manufacturing services for the food packaging industry. To learn about the cost-saving benefits of working with a contract manufacturer, download our free eBook, "The Financial Case for Contract Manufacturing."

Recycled Packaging & How it Impacts the Food Industry

Walmart Scorecard's Impact on Packaging

During a PACK Expo keynote in 2006, Walmart launched the packaging scorecard initiative. Since then, brands have been continuing to update and revise their packaging to create a more environmentally-friendly solution. Below is an outline of how the sustainable initiative has impacted the food industry across various package types, including paper-based, plastic, glass, and aluminum.

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Paper-Based Packaging and Poly-Replacements

Paper and paper-based products, such as cartons and paperboard, are easy to recycle, and the resultant recycled material is extremely versatile. More than half of Americans have easy access to paper recycling – an amount which is expected to increase rapidly – and there are far fewer restrictions on recycling paper than plastic.

For applications such as food safe packaging and high-end brand displays, coatings are utilized to provide the appropriate properties. To achieve a recyclable, paper-based package for these types of applications, water-based coatings are often required.

To address this, Sierra is working with nationally-recognized chemical companies to qualify reliable eco-friendly coatings. Our water-based, eco-friendly coatings can meet biodegradable,

compostable, and fully recyclable requirements. These coatings also possess important properties to aid in brand awareness efforts; they are easy to print over and allow for optimal packaging aesthetics.

Plastic Brand Packaging

One of the biggest challenges with recyclable, plastic packaging is the restrictions involved with recycling plastic material. It is estimated that 95% of recyclable plastic packaging, amounting between $80 and $120 billion worth of packaging material, is wasted on an annual basis.

While outreach, recovery, reclamation, and recycling efforts can be effective for multinational corporations, they may be cost-prohibitive for smaller or regional brands. For these businesses, investing in eco-friendly packaging is often a more practical, actionable solution.

Recycling plastic presents a three-fold problem:

1. Public access to plastic recycling facilities or programs is surprisingly limited;
2. Different municipalities levy often confusing recyclability restrictions based on plastic type, size, and shape; and
3. The recycling process is costly in terms of money and energy use.

Aluminum, Glass and Plastic Bottles

As demand rises for sustainable products, brands are prioritizing green initiatives, such as eco-friendly packaging and packaging recovery.

The Coca-Cola Company, for example, has established an extremely ambitious recycling initiative – by 2020, they aim to recover and recycle a full 75% of the beverage containers, bottles, and cans they produce annually. Working with The

Recycling Partnership, Coca-Cola has already recycled 59% of their output.

This is just one example of the growing sentiment in favor of environmentally conscious initiatives; worldwide, consumers are looking to brands to lead conservation efforts with sustainable, environmentally friendly packaging options.

To learn how to make your food packaging eco-friendly without sacrificing your unique brand identity, contact our chemical experts.

Biodegradable Packaging Options

Investing in environmentally-friendly packaging is quickly gaining momentum in many industries, including food and beverage. From a product development perspective, our paper experts have seen biodegradable packaging become increasingly popular.

> *According to the Environmental Protection Agency (EPA), a material can be described as biodegradable when it is "capable of being decomposed by the action of biological processes."*

In other words, a material is biodegradable if it will decompose within a reasonable amount of time when left outside in natural conditions.

RELATED: How to Choose Between Biodegradable, Compostable, and Recyclable Packaging

Packaging Materials and their Biodegradation Process

Glass, commonly used for packaging beverages and various high-end products, is not biodegradable. In fact, it can take up to 1,000,000 years to biodegrade. Plastics are not biodegradable, either; polyvinyl chloride (PVC), often used in food and beverage applications, is capable of physical breakdown but never truly decomposes. Polyethylene (also known as polythene or simply “poly”), another popular food packaging plastic, takes up to 1,000 years to biodegrade. Other plastics can take various lengths of time to biodegrade, averaging at about 450 years.

These packaging decomposition rates are untenable when striving for increased sustainability. Paper, on the other hand, is an ideal biodegradable option, taking anywhere from two to five months to decompose.

Biodegradable vs. Compostable

Because the terms are often incorrectly interchanged, biodegradability and compostability are frequently conflated. Adding to the confusion is the fact that the processes involve the same action – decomposing a material into an organic state. This decomposition occurs in two very different ways, however.

Compostable materials decompose only when in a carefully controlled environment, where factors such as source material, moisture content, temperature, oxygen levels, and acidity are all closely monitored. Biodegradable materials decompose through a chemical process where micro-organisms break down the materials resulting in carbon dioxide, methane, and biomass.

Paper Biodegradability

Paper is much more biodegradable than plastic or glass. Some paper can decompose faster than fully organic products. For example, paper towels often biodegrade quicker than thick fruit rinds such as orange or banana peels. However, it's important to keep in mind that not all paper products biodegrade at the same rate.

Less processed papers, such as mechanically pulped products, biodegrade at slower rates than more highly processed papers. Paper containing mechanical pulp has higher amounts of lignin – very complex phenolic polymers found in the cell walls of trees – which interferes with biodegradation.

Designing Eco-Friendly Packaging

The right coating can provide resistance to grease, oil, water, oxygen-exposure, or a combination of these food-safe properties for paper-based packaging; while maintaining the eco-friendly standard. However, these types of properties are often provided by poly- or PVC-based substrates, thereby negating any of the potential environmental benefits of using paper in packaging.

To counter this issue and create truly environmentally friendly packaging, Sierra Coating Technologies has partnered with some of the nation's most accomplished chemical companies to develop several biodegradable coatings.

As a leading contract and toll manufacturer of eco-friendly coating and lamination solutions, including poly and PVC replacements, Sierra is proud to be a part of the push toward sustainability. The benefit of working with Sierra is that we run tests on our production equipment to ensure the materials and substrates will run efficiently during a full-line production. If you're ready to make the switch to environmentally friendly packaging, contact our chemical experts.