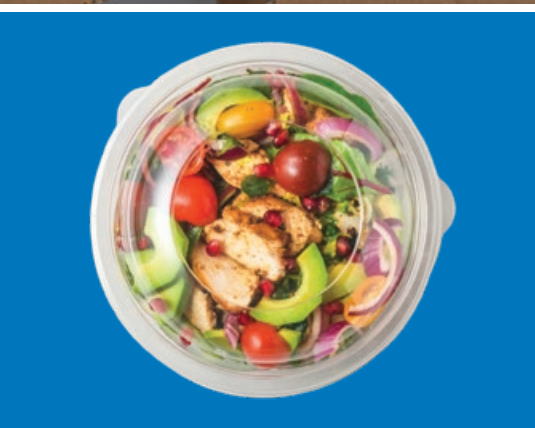




Department of
Environmental
Conservation

Alternatives to Single-Use Expanded Polystyrene Foam Food and Beverage Containers and Expanded Polystyrene Foam Loose Fill Packaging (“Packing Peanuts”)

REFERENCE GUIDE





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How to Use This Guide

Under the New York State [Expanded Polystyrene Foam Container and Polystyrene Loose Fill Packaging Ban](#), effective January 1, 2022, no covered food service provider or store (retail or wholesale establishment) will be allowed to sell, offer for sale, or distribute disposable food service containers that contain expanded polystyrene foam in New York State. In addition, no manufacturer or store will be allowed to sell, offer for sale, or distribute polystyrene loose fill packaging (commonly referred to as packing peanuts) in the state.

This reference guide is intended to assist covered food service providers and stores in reviewing various attributes of different containers and packaging materials and available options in order to assist in choosing a foam-free alternative. The guide includes a section with key terms and definitions that may be encountered when researching and purchasing foam-free alternatives. Following the key terms and definitions portion is a section dedicated to a variety of foam-free container and loose fill packaging materials. Each material type includes guidance about whether a product is recyclable, compostable, or reusable, or must be disposed of in the trash. This guide is intended to be a reference for any establishment or organization looking to transition away from expanded polystyrene foam containers and loose fill packaging.

This guide may be used as a first step in looking at container and packaging alternatives. Any given product may vary from the guidelines presented here. Purchasers should work with suppliers to evaluate the characteristics of specific products they are interested in using. Under New York State's Expanded Polystyrene Foam Container and Polystyrene Loose Fill Packaging Ban, any alternative may be used as long as the alternative container or loose fill packaging product (packing peanuts) does not contain expanded polystyrene foam. However, the New York State Department of Environmental Conservation (DEC) encourages the use of reusable, recyclable, and compostable items. A full transition to reusable products where possible is encouraged, along with consideration of items made using recycled content.

Note: The definitions in this guidance document are provided to help those who want to improve or maximize their personal or business waste reduction efforts in order to conserve plant and mineral resources, energy, and water, and in order to reduce the pollution of water, soil, and air. They are not intended to provide legal definitions of waste or any terms related to waste. If you are looking for such definitions, please refer directly to the statutes and regulations.

The information contained in this document was obtained through publicly available materials. The information is subject to change based on markets for certain products and materials and advances within the container and packaging industry. Additionally, images contained in this document are representative of items you may see but are not representative of all available items. For specific product options and pricing, check with your supply vendor.

Additionally, all products and packaging have an environmental impact. Environmental impacts of specific items can be assessed by using the [Understanding Packaging Scorecard](#) (this scorecard is not created or managed by DEC).

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Navigating Green Terms

ASTM International - One of the largest voluntary standards development organizations in the world, ASTM International is a trusted source for technical standards for materials, products, systems, and services. Known for their high technical quality and market relevancy, ASTM International standards play an important role in the information infrastructure that guides design, manufacturing, and trade in the global economy.

ASTM D6400-19 - *Standard Specification for Labeling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities.* This specification covers plastics and products made from plastics that are designed to be composted in municipal and commercial aerobic composting facilities. The properties in this specification are those required to determine if plastics and products made from plastics will compost satisfactorily, including biodegrading at a rate comparable to known compostable materials. The purpose of this specification is to establish standards for identifying products and materials that will compost satisfactorily in commercial and municipal composting facilities.

ASTM D6868-21 - *Standard Specification for Labeling of End Items that Incorporate Plastics and Polymers as Coating or Additives with Paper and Other Substrates Designed to be Aerobically Composted in Municipal or Industrial Facilities.* This specification establishes the requirements for labeling of materials and products (including packaging), wherein a biodegradable plastic film or coating is attached (either through lamination or extrusion directly onto the paper) to compostable substrates and the entire product or package is designed to be composted in municipal and commercial aerobic composting facilities. This specification, however, does not describe the contents of the product or their performance with regards to compostability or biodegradability. In order to compost satisfactorily, the product must demonstrate each of the three characteristics: (1) proper disintegration during composting; (2) adequate level of inherent biodegradation; and (3) no adverse impacts on the ability of composts to support plant growth.

Biodegradable Products Institute (BPI) - is a professional membership association of key individuals and groups from government, industry, and academia, which promotes the use of—and certifies—a wide array of compostable products designed to fully biodegrade in specific environments. This includes, but is not limited to, packaging and food service ware. BPI advocates for compostable products as tools for scalable diversion of organic waste to composting. Certification for compostable products is critical for ensuring that items have been properly tested, meet international standards, and can be identified as such by composters, municipalities, restaurants, consumers, and others engaged in the diversion of organic waste.

Bio-based - means plant-derived materials that are commonly used to make single-use food service containers and wrappers. This may include, but is not limited to, cellulose, fiber crops such as hemp and flax, bamboo and other grasses, agricultural waste such as sugarcane (bagasse) and rice straw, and materials derived from agricultural products such as starch and lactic acid (PLA).

***Note that a product labeled as “bio-based” does not necessarily mean that it is compostable or biodegradable. Additionally, many of these products are not currently accepted at recycling facilities and can contaminate the recycling stream. Always check with your local recycling and/or composting hauler or facility to see if they accept the products you’re purchasing.**

Biodegradable - describes materials that can ultimately decompose with the help of bacteria and fungi, and turn into water, carbon dioxide, and biomass as a result (no set timescale).

***Note that a product labeled as “biodegradable” does not necessarily mean that it is fully compostable or biodegradable. Additionally, many of these products are not currently accepted at recycling facilities and can contaminate the recycling stream. Always check with your local recycling and/or composting facility to see if they accept the products you’re purchasing.**

Bioplastic - is any plastic derived from plant-based materials that can replace traditional plastics derived from petroleum.

***Note that a product labeled as “bioplastic” does not necessarily mean that it is compostable or biodegradable. Additionally, many of these products are not currently accepted at recycling facilities and may contaminate the recycling stream. Always check with your local recycling and/or composting facility to see if they accept the products you’re purchasing.**

Carbon Footprint - is a measurement of the impact a given activity has on the environment based on the amount of greenhouse gases that are produced. It’s measured in terms of the units of carbon dioxide (CO₂).

Clamshell - is a type of container that is made up of two pieces. The pieces are joined on one side and usually have a closure or sealing mechanisms such as tabs on the opposite side. Clamshells can be found in many forms, including takeout or to-go containers and are available in a variety of materials. The term “hinged container” may also be used to describe a clamshell container or may sometimes be used interchangeably with the term clamshell. Some packaging websites may make a distinction between a standard clamshell container and a hinged container.

Compostable - means all the materials in a product or packaging are capable of undergoing biological decomposition in an appropriate (i.e., commercial or municipal) compost facility as part of an available program in a safe and timely manner (no more than 180 days), such that the material is not visually distinguishable and breaks down into carbon dioxide, water, inorganic compounds, and biomass suitable for use as a soil amendment (e.g., compost, soil-conditioning material, mulch), leaving no toxic residue.

Home Compostable - this type of composting occurs over a period of months, generally in backyard compost bins, piles, or barrels. Backyard composting is not suitable for products such as PLA bioplastics as the conditions and temperatures are not adequate.

Municipal and Commercial Compostable - this type of composting is a multistep process that is closely monitored with measured inputs of air, water, and carbon- and nitrogen-rich materials. Commercial and municipal composting can utilize some bioplastics in the process due to these closely monitored conditions.

*Note that you should always check with your local composting facility to determine if a product is accepted for composting. Not all products listed as compostable are accepted in all composting programs.

Eco-friendly - means a product having minimal or no impacts on the environment.

*Note that a product labeled as eco-friendly may not be recyclable, compostable, or biodegradable. The term eco-friendly is not regulated. It is best to fully evaluate a product to ensure it is made sustainably and that it has viable end-of-life options.

Forest Stewardship Council (FSC) Certification - A product with an FSC certification means the product comes from responsibly managed forests that provide environmental, social, and economic benefits. Different types of certifications can be achieved, including ones for forest management and chain of custody. For each certification, independent certifiers verify that FSC standards are met before certification is granted.

Molded Fiber - means bagasse, wheat straw, recycled paper, and other types of fibrous materials that are put into a pulping device and formed into various types of food service products, such as plates, bowls, and takeout containers. Some molded fiber products are certified as compostable by the Biodegradable Products Institute or appear on other lists of approved compostable food service products. Unfortunately, some non-BPI-certified molded fiber food service products may contain PFAS.

Per- and Polyfluoroalkyl Substances (PFAS) - are a class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom.

PFAS cannot be present in BPI-certified products. Specific criteria must be met to ensure PFAS do not exist in the product.

Additional information about PFAS is available from [DEC](#), the [New York State Department of Health](#), and in the “Resources” section of this guide.

Post-Consumer Recycled Content (PCR) - A product labeled as “PCR” means the product is made from post-consumer recycled content. A product with this label is made from products, packages, or materials (e.g., plastic bottles, aluminum cans, cardboard boxes) that have served their intended use as consumer items, were accepted by a recycling facility, and were made into a new product. For example, if a product label claims the product has 30% PCR, it will be made up of 70% virgin materials and 30% recycled materials.

Recyclable - means a component of waste that exhibits the potential to be recycled through conversion into raw materials used in the production of new products [6 NYCRR 360.2(b)220 and 360.2(b)224].

*Note that a product labeled as “recyclable” does not necessarily mean that a product is accepted in all recycling programs. Before placing a product in a recycling bin, check local recycling guidelines or with your waste hauler to see if the product is accepted for recycling.

Recycling Symbol/Chasing Arrows Symbol - The recycling symbol/chasing arrows symbol is often used to convey that a product is either made from recycled content or is recyclable. However, it is best to check local recycling guidelines or with your waste hauler to see if the product is accepted for recycling in your area.

Reusable - means a product that is not created with the intent of disposal after a single use, is not conventionally disposed of after a single use, and is manufactured to withstand multiple washes and uses before it reaches the end of its useful life.

Sustainable - means using resources in such a manner that they have limited negative effects on the environment for present and future generations, including resource depletion, degradation of natural resources, and pollution creation. Sustainable practices include using renewable resources that have no or minimal impacts on the environment.

*Note that it is always best to fully evaluate a product to ensure it is sustainably made and has sustainable end-of-life options such as reuse, recycling, and composting.

Sustainable Forestry Initiative (SFI) Certification -

The Sustainable Forestry Initiative standards and certified products help to advance sustainable forestry and responsible purchasing. Different types of certifications can be achieved, including ones for forest management, fiber sourcing, and chain of custody. For each certification, independent certifiers verify that SFI standards are met before certification is granted.

USDA Certified Bio-based Product - A product with this label means that it has achieved third-party verification of bio-based content and has earned USDA certification and approval to display the label.

Void Fill - A void-filling packaging product is a product that is used as a packaging fill to protect products during shipping.



When choosing products for your business, there are many factors that should be taken into consideration, especially for businesses interested in lessening their environmental footprint.

Foam-Free Container and Loose Fill Packaging Alternatives


There are many alternatives available when it comes to choosing food service ware containers and loose fill packaging materials.

When choosing products for your business, there are many factors that should be taken into consideration, especially for businesses interested in lessening their environmental footprint. Whenever possible, the best alternative is to use reusable products, such as those made of glass, ceramic, wood, stainless steel, etc. More information on how businesses can switch to reusable service ware can be found at the end of this document. Product characteristics such as compostability and recyclability are also important factors to consider, as well as whether the products you purchase contain PFAS. If your business is looking for compostable items, it's also important to consider whether products are ASTM or BPI certified compostable.

In addition to different product end-of-life options (reuse, recycle, compost, or trash), there are many different types of product materials available for consideration. One type is packaging and food service containers made from paper or fiber. These products are made from virgin paper, paper with recycled content, or plant fibers such as bagasse, bamboo, wood pulp, and wheat straw. Another packaging option is products made from compostable plastics. There are also recyclable options available such as foil and polyethylene terephthalate (PET) products. When choosing products for their compostability and recyclability, it is always best to check to see what composting and recycling options are available to you and your customers and if the chosen products are accepted for composting or recycling in your area.

The following options are meant to help businesses, institutions, and individuals make container and loose fill packaging choices that best suit their overall needs and goals. Additionally, all products and packaging have an environmental impact. Environmental impacts of specific items can be assessed by using the [Understanding Packaging Scorecard](#) (this scorecard is not created or managed by DEC).

Bagasse

<p>EXAMPLE PICTURE</p>		
<p>DESCRIPTION</p>	<p>Plants such as agave, sorghum, and sugarcane are pressed for their juices. After pressing, bagasse is made from the remaining plant material, which is mixed with water to form a pulp and pressed or molded into food service products. Sugarcane bagasse is currently the most common type of bagasse food service product, and is also sometimes referred to as sugarcane fiber.</p>	
<p>USES</p>	<p>This material is available in options for hot and cold foods. Additionally, some bagasse products are available in microwave- and freezer-safe choices. Also, because it can insulate food, it can replace expanded polystyrene foam products used for insulation</p>	
<p>COLOR/TEXTURE</p>	<p>Light brown or white (bleached) pressed and molded fiber material</p>	
<p>ADDITIONAL CONSIDERATIONS</p>	<p>Coatings/Additives: Bagasse containers may contain PFAS. Please be aware that effective December 31, 2022, the prohibition on PFAS in food packaging (ECL Article 37, Title 2) will ban the distribution, sale, or offering for sale in New York State, of food packaging that contains intentionally added PFAS. Under this law, the term “intentionally added” means that the chemical “serves an intended function in the product component,” and, therefore, includes such chemicals as waterproofing or grease-proofing agents. This restriction applies to food packaging intended for direct food contact that is comprised mainly of paper, paperboard, or other materials originally derived from plant fibers. And further, under the definitions of this law, the term “package” includes items such as carrying cases, crates, cups, pails, trays, wrappers, bags, and tubs. As such, purchasers should avoid paper, paperboard, or plant-derived food packaging where PFAS have been added to provide waterproofing, grease-proofing, or other functions. The best source of information on whether food packaging contains intentionally added PFAS is likely to be the packaging manufacturer or supplier.</p> <p>Environmental:</p> <ul style="list-style-type: none"> • Bagasse products are sometimes coated with a thin layer of plastic such as a PLA lining. • Check with your vendor about PFAS-free options. <p>Labeling: Some products may carry an ASTM D6868-21, USDA Certified Bio-based Product, or BPI label.</p>	
<p>AVAILABLE PRODUCT OPTIONS</p>	<p>Reusable Containers & Trays</p>	<p>No known reusable products available</p>
<p>AVAILABLE PRODUCT OPTIONS</p>	<p>Disposable Containers & Trays</p>	<p>Available in a variety of plates, bowls, takeout containers, and compartmentalized cafeteria trays</p>
<p>AVAILABLE PRODUCT OPTIONS</p>	<p>Void Fill/Protective Packaging</p>	<p>No known void fill products available</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Reuse</p>	<p>No, this material is typically too soiled to be reused</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Recycle</p>	<p>Currently, these products are not accepted by recycling facilities. Check your local recycling guidelines.</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Compost</p>	<p>Commercial: This material may be accepted at some commercial composting facilities. Check with the facility to see if it’s accepted. Some facilities consider this material a contaminant.</p> <p>Home: It may break down slowly in home compost bins.</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Trash</p>	<p>Yes, if composting options do not exist</p>


Bamboo and Bamboo Leaf

<p>EXAMPLE PICTURE</p>		
<p>DESCRIPTION</p>	<p>Bamboo food service ware is made from the bamboo plant. Disposable bamboo food service ware is typically made using the outer layer of the bamboo stem whereas reusable bamboo products are typically made from the whole plant. Bamboo food service ware may also be made from bamboo leaves. In all instances, the material is molded into various shapes.</p>	
<p>USES</p>	<p>This material is available in options for hot and cold foods. It can also be found in leak-proof and grease-resistant choices. Microwave-, freezer-, and dishwasher-safe options also exist. Some reusable bamboo options are hand-wash only.</p>	
<p>COLOR/TEXTURE</p>	<p>Some takeout containers are beige or off-white and appear similar to bagasse or paper fiber; other disposable food service ware such as plates and bowls may have a wood-grain appearance while bamboo cups may resemble paper fiber. Reusable bamboo food service products may also have a wood-grain appearance.</p>	
<p>ADDITIONAL CONSIDERATIONS</p>	<p>Coatings/Additives: PFAS-free bamboo products are available; however, blended bamboo products (e.g., bamboo and sugarcane bagasse) may contain PFAS. Check with your vendor about PFAS-free options.</p> <p>Labeling: Some products may carry an ASTM D6868-21, USDA Certified Bio-based Product, or BPI label.</p> <p>Materials: Bamboo products are available as stand-alone bamboo or a blend of bamboo and sugarcane bagasse or bamboo and polypropylene.</p>	
<p>AVAILABLE PRODUCT OPTIONS</p>	<p>Reusable Containers & Trays</p>	<p>Available in plates, bowls, and trays</p>
	<p>Disposable Containers & Trays</p>	<p>Available in a variety of serving boats, bowls, cups, pizza boxes (pizza boxes are available as a bamboo and sugarcane bagasse blend), food boats, and plates</p>
	<p>Void Fill/Protective Packaging</p>	<p>No known void fill products available</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Reuse</p>	<p>Reusable bamboo products can and should be reused. Disposable bamboo products are not typically intended or designed for reuse and are typically designed for disposability. Reuse of disposable bamboo products will depend on customer preferences. Customers that receive disposable bamboo takeout containers could opt to reuse these items.</p>
	<p>Recycle</p>	<p>No. Bamboo and bamboo-blend products should not be placed in recycling bins, even if they contain plastic.</p>
	<p>Compost</p>	<p>Commercial: Disposable bamboo products may be accepted at some commercial composting facilities. Check with the facility to see if it's accepted. Depending on coatings, some facilities may not accept this material. Bamboo blend products should not be put in compost because they typically contain plastic.</p> <p>Home: Unknown; check product and vendor specifications. Bamboo blend products should not be put in compost because they typically contain plastic.</p>
	<p>Trash</p>	<p>Yes</p>

Film Plastics

ABBREVIATION (IF APPLICABLE)	HDPE (High-density polyethylene) LDPE (Low-density polyethylene)	
RESIN IDENTIFICATION CODE (IF APPLICABLE)	HDPE - #2, LDPE - #4, and biodegradable or compostable film plastics made from PLA or other non-petroleum sources may be labeled with #7	
EXAMPLE PICTURE		
DESCRIPTION	Film plastics are thin, flexible sheets of plastic, typically made from polyethylene resin, and used for a variety of packaging purposes. Bubble wrap, air pillows, dry cleaning bags, bread bags, and produce bags are all examples of film plastics.	
USES	Film plastics most applicable to this alternatives guide are bubble wrap and air pillows, which are primarily used for packaging and shipping needs.	
COLOR/TEXTURE	Bubble wrap and air pillows are usually clear or green with a smooth texture. Note that both petroleum-based and non-petroleum-based (“biodegradable” or “compostable”) film plastics may be green in color.	
ADDITIONAL CONSIDERATIONS	<p>Environmental: Post-consumer recycled content products may be available.</p> <p>Labeling: Some film plastics made from non-petroleum-based sources, such as PLA, may carry the label “biodegradable” or “compostable.” In addition, companies using bubble wrap and air pillows should be careful to avoid “recyclable” messaging on their packaging. While film plastics are recyclable at specific store drop-off locations, this material should not be put in home recycling bins.</p>	
AVAILABLE PRODUCT OPTIONS	Reusable Containers & Trays	No known reusable products available
	Disposable Containers & Trays	No known disposable products available
	Void Fill/Protective Packaging	A wide variety of air pillows and bubble wrap are available.
END-OF-LIFE OPTIONS	Reuse	Both air pillows and bubble wrap are reusable and consumer reuse should be encouraged.
	Recycle	Clean and dry film plastics are recyclable at specific store drop-off locations across New York, but they should not be put in home recycling bins. Any film plastic that is not a #2 or #4 plastic resin, such as those labeled “compostable” or “biodegradable,” should not be put in film plastic recycling bins.
	Compost	<p>Commercial: No (See “PLA” regarding #7 film plastics)</p> <p>Home: No (See “PLA” regarding #7 film plastics)</p>
	Trash	Yes, but reuse and recycling options exist and are preferred

Foil


<p>EXAMPLE PICTURE</p>		
<p>DESCRIPTION</p>	<p>Foil containers made from aluminum are widely available metal containers that come in rectangle, square, or round shapes, with plastic or paper fiber lids.</p>	
<p>USES</p>	<p>This material is available in options for hot and cold foods. Foil containers are also available in freezer- and oven-safe choices, but are not for use in microwaves.</p>	
<p>COLOR/TEXTURE</p>	<p>Metal, usually with a clear plastic or white paperboard lid. Paperboard lids may be laminated or coated.</p>	
<p>ADDITIONAL CONSIDERATIONS</p>	<p>Foil pans have been anodized, leaving them safe and non-reactive for food applications. Some may contain non-stick coatings—contact your vendor for more information.</p>	
<p>AVAILABLE PRODUCT OPTIONS</p>	<p>Reusable Containers & Trays</p>	<p>No known reusable products available</p>
	<p>Disposable Containers & Trays</p>	<p>Available in a variety of trays, pans, and takeout containers</p>
	<p>Void Fill/Protective Packaging</p>	<p>No known void fill products available</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Reuse</p>	<p>These items are not typically intended or designed for reuse and are typically designed for disposability. Reuse of this product will depend on customer preferences. Customers that receive disposable foil containers could opt to reuse them.</p>
	<p>Recycle</p>	<p>Accepted in some recycling programs if free of food debris. Check local recycling rules.</p>
	<p>Compost</p>	<p>Commercial: No Home: No</p>
	<p>Trash</p>	<p>Yes, if heavily soiled and not recyclable</p>



Mushroom

DESCRIPTION	Mushroom packaging is mycelium based and some are a blend of hemp and mycelium. Mushroom packaging often comes in a molded form.	
USES	Primary uses of mushroom packaging are for shipment packaging and protective packaging.	
COLOR/TEXTURE	Often beige or off-white in color, these products have a fibrous appearance. Texture depends on product type ordered.	
ADDITIONAL CONSIDERATIONS	In-stock options of these products can be purchased and some companies also have made-to-order features to create custom mushroom packaging to fit customer packaging needs.	
AVAILABLE PRODUCT OPTIONS	Reusable Containers & Trays	No known reusable products available
	Disposable Containers & Trays	No known disposable products available
	Void Fill/Protective Packaging	No known void fill products are available at this time but companies interested in mushroom packaging could look into molded forms and protective packaging as a void fill replacement.
END-OF-LIFE OPTIONS	Reuse	Customers that receive mushroom packaging could opt to reuse it, although this packaging is intended to break down.
	Recycle	Mushroom packaging should not be put in recycling bins.
	Compost	Commercial: Check with the facility to see if product is accepted.
		Home: Many forms of mushroom packaging are designed to be home compostable. Check with the vendor before home composting.
	Trash	Yes, if composting options do not exist

Palm Leaf

<p>EXAMPLE PICTURE</p>		
<p>DESCRIPTION</p>	<p>Palm leaf products are made from fallen palm leaves. Many are labeled as specifically being made of leaves from the areca palm. The leaves are pressed and shaped into a variety of food service products.</p>	
<p>USES</p>	<p>This material is available in options for hot and cold foods. It's also available in soak-proof, leak-proof, and freezer- and microwave-safe options.</p>	
<p>COLOR/TEXTURE</p>	<p>Palm leaf containers may be beige, brown, or have a wood grain appearance. They may also look similar to bamboo or wood products.</p>	
<p>ADDITIONAL CONSIDERATIONS</p>	<p>Environmental: PFAS-free palm leaf products are available. Labeling: Some products may carry an ASTM D6868-21, USDA Certified Bio-based Product, or BPI label.</p>	
<p>AVAILABLE PRODUCT OPTIONS</p>	<p>Reusable Containers & Trays</p>	<p>No known reusable products available</p>
	<p>Disposable Containers & Trays</p>	<p>Available in bowls, plates, compartmentalized trays, and food cones</p>
	<p>Void Fill/Protective Packaging</p>	<p>No known void fill products available</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Reuse</p>	<p>Disposable palm leaf products are not typically intended or designed for reuse and are typically designed for disposability. Reuse of disposable palm leaf products will depend on customer preferences. Customers that receive disposable palm leaf takeout containers could opt to reuse these items.</p>
	<p>Recycle</p>	<p>No</p>
	<p>Compost</p>	<p>Commercial: Disposable palm leaf products may be accepted at some commercial composting facilities. Check with the facility to see if it's accepted. Depending on coatings, some facilities may not accept this material. Home: Unknown; check product and vendor specifications</p>
	<p>Trash</p>	<p>Yes, if composting options do not exist</p>



Paper Fiber

EXAMPLE PICTURE



DESCRIPTION

Paper fiber means fiber that is created from trees or recycled paper and cardboard. Paper fiber can be molded into food service containers that are available in a variety of shapes and sizes. Paper fiber is also used to make a variety of void fill packaging options.

USES

Container: This material is available in options for hot and cold foods, but some paper fiber containers are not suitable for hot foods, so check with your vendor. Some paper fiber containers are available in leak-proof, soak-proof, or freezer- or microwave-safe choices, but these characteristics depend on a variety of factors including coatings and the material of any lids or additional container accessories.

Void Fill: This material can be utilized for a variety of cushioning needs.

COLOR/TEXTURE

Container: White and off-white are common colors. Containers may be bleached or unbleached and may be smooth or textured.

Void Fill: Usually brown, may be smooth or textured depending on product

ADDITIONAL CONSIDERATIONS

Coatings/Additives: Paper fiber can sometimes be coated with materials such as clay or a thin layer of plastic, such as PLA or polyethylene (PE). In addition, paper fiber containers may contain PFAS. Please be aware that effective December 31, 2022, the prohibition on PFAS in food packaging (ECL Article 37, Title 2) will ban the distribution, sale, or offering for sale in New York State, of food packaging that contains intentionally added PFAS. Under this law, the term “intentionally added” means that the chemical “serves an intended function in the product component,” and, therefore, includes such chemicals as waterproofing or grease-proofing agents. This restriction applies to food packaging intended for direct food contact that is comprised mainly of paper, paperboard, or other materials originally derived from plant fibers. And further, under the definitions of this law, the term “package” includes items such as carrying cases, crates, cups, pails, trays, wrappers, bags, and tubs. As such, purchasers should avoid paper, paperboard, or molded fiber food packaging where PFAS have been added to provide waterproofing, grease-proofing, or other functions. The best source of information on whether food packaging contains intentionally added PFAS is likely to be the packaging manufacturer or supplier.

Environmental: Many void fill paper fiber products that contain post-consumer recycled content are available.

Labeling: Some products may carry an ASTM D6868-21, BPI, USDA Certified Bio-based Product, FSC, SFI, or post-consumer recycled content label.

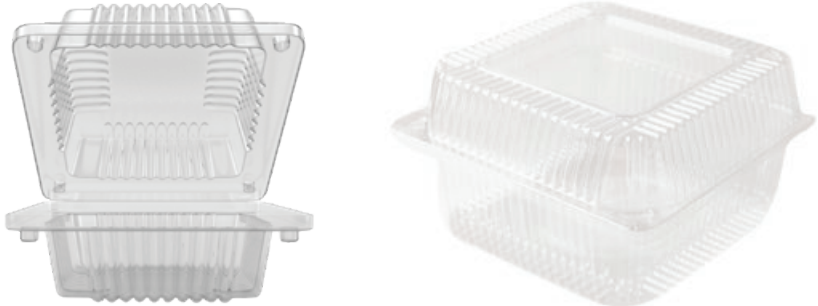
Recyclability: Plastic-lined paper products may impact the recyclability of other paper products and often need to be removed from the recycling stream.

Paper Fiber (continued)

AVAILABLE PRODUCT OPTIONS	Reusable Containers & Trays	No known reusable products available
	Disposable Containers & Trays	Available in a wide variety of bowls, cups, plates, takeout containers, and compartmentalized cafeteria trays
	Void Fill/Protective Packaging	Available in a variety of options, including corrugated “bubble” wrap, paper air pillows, tissue paper, coiled paper cushioning products, honeycomb kraft paper, and crinkle kraft paper fill.
END-OF-LIFE OPTIONS	Reuse	<p>Paper fiber containers are not typically intended or designed for reuse and are typically designed for disposability. Reuse of these products will depend on customer preferences. Customers that receive disposable paper fiber containers could opt to reuse them.</p> <p>Void Fill: Reuse of paper fiber void fill is the best end-of-life option for these items.</p>
	Recycle	<p>Containers: Variable due to coatings and how soiled an item is. Check local recycling rules.</p> <p>Void Fill: May vary depending on product type. Check local recycling rules.</p>
	Compost	<p>Commercial: Unlined containers and void fill may be accepted at commercial facilities. Check with the facility.</p> <p>Home: Depending on coatings, containers may or may not be suitable for home compost bins. Void fill may break down slowly in home compost bins.</p>
	Trash	<p>Containers: Yes. This material often must go in the trash due to being food soiled.</p>




Polyethylene Terephthalate


ABBREVIATION (IF APPLICABLE)	PET or PETE	
RESIN IDENTIFICATION CODE (IF APPLICABLE)	#1	
EXAMPLE PICTURE		
DESCRIPTION	Polyethylene Terephthalate or PET (also sometimes labeled as “PETE”) is marked with a #1 resin identifier. This common plastic is available in a variety of disposable PET/PETE containers.	
USES	This material is available in options for hot and cold foods. Some variations of disposable PET/PETE containers are available in freezer-, microwave-, and oven-safe options.	
COLOR/TEXTURE	Usually clear or black	
ADDITIONAL CONSIDERATIONS	Environmental: Products that contain recycled content are readily available.	
AVAILABLE PRODUCT OPTIONS	Reusable Containers & Trays	No known reusable products available
	Disposable Containers & Trays	Available in a wide variety of takeout containers, deli containers, and cups
	Void Fill/Protective Packaging	No known void fill products available
END-OF-LIFE OPTIONS	Reuse	Disposable PET/PETE items are not typically intended or designed for reuse and are typically designed for disposability. Reuse of this product will depend on customer preferences. Customers that receive PET/PETE takeout containers could opt to reuse these items.
	Recycle	#1 PET/PETE is usually accepted for recycling in most areas, but check local recycling guidelines. Items should be free of food and residue. Some recycling programs do not accept lids, black plastic, or clamshell containers.
	Compost	Commercial: No Home: No
	Trash	Yes, if recycling options do not exist



Polylactic Acid

ABBREVIATION (IF APPLICABLE)	PLA	
RESIN IDENTIFICATION CODE (IF APPLICABLE)	Sometimes #7 (other)	
EXAMPLE PICTURE		
DESCRIPTION	PLA is a non-petroleum-based plastic that resembles common petroleum-based plastics such as polyethylene and polypropylene. PLA is made from sugars in plants such as corn and sugarcane.	
USES	<p>Container: Normally used for cold food and beverages, some products are available as freezer-safe, some products are cold food rated only, and others are available as heat-safe options—check maximum temperature in product specifications.</p> <p>Void Fill: PLA void fill is typically seen as a film plastic and can be used for a variety of cushioning needs.</p>	
COLOR/TEXTURE	<p>Container: Typically clear, sometimes with a green band or pattern indicating it is plant-based or compostable. Some PLA disposable food service ware also comes in black or white.</p> <p>Void Fill: May be clear, off-white, or light green</p>	
ADDITIONAL CONSIDERATIONS	<p>Coatings/Additives: Items can be made from PLA, and PLA may also be used as a coating or additive to other items such as paper or other fiber-based products (e.g., paper coffee cup with PLA lining). In addition, PFAS-free PLA products are available.</p> <p>Coloration: Some non-PLA petroleum-based plastics have a green coloration similar to PLA products.</p> <p>Environmental: Only put PLA products in recycling bins if they are accepted in your local recycling program. For more information, visit https://recyclerightny.org/.</p> <p>Labeling: Some products may carry an ASTM D6400-19, USDA Certified Bio-based Product, or BPI label.</p> <p>Storage: Be sure to check storage instructions as some products must be stored in a cool place out of direct sunlight.</p>	
AVAILABLE PRODUCT OPTIONS	Reusable Containers & Trays	No known reusable products available
	Disposable Containers & Trays	Available in a wide variety of container types, such as cups, lids, deli containers, takeout containers, portion cups, and compartmentalized containers
	Void Fill/Protective Packaging	A variety of PLA-based film plastics are available, such as air pillows and bubble wrap. Some antistatic options also exist.
END-OF-LIFE OPTIONS	Reuse	PLA disposable containers are not typically intended or designed for reuse and are typically designed for disposability. Reuse of this product will depend on customer preferences. Customers that receive disposable PLA containers could opt to reuse them. PLA void fill could also be reused.
	Recycle	<p>Containers: Only put PLA products in recycling bins if they are accepted in your local recycling program. For more information, visit https://recyclerightny.org/.</p> <p>Void Fill: Any film plastic that is not a #2 (HDPE) or #4 (LDPE) plastic resin, such as those labeled “compostable” or “biodegradable,” should not be put in film plastic recycling bins.</p>
	Compost	<p>Commercial: PLA may be composted in high-heat, commercial compost facilities, but not all composting facilities accept PLA plastic items. Check with your vendor and area facilities.</p> <p>Home: Not likely to break down in home compost bins</p>
	Trash	Yes

Polypropylene


ABBREVIATION (IF APPLICABLE)	PP	
RESIN IDENTIFICATION CODE (IF APPLICABLE)	#5	
EXAMPLE PICTURE		
DESCRIPTION	Polypropylene is a type of durable plastic used to create a variety of food contact products including food cups and tubs, takeout containers, and food service trays.	
USES	This material is available in options for hot and cold foods. Polypropylene food service ware products are available in microwave-, dishwasher-, and freezer-safe choices.	
COLOR/TEXTURE	Both trays and containers are usually a smooth texture. Containers are typically available in translucent, black, or white, and trays are available in a wide array of colors.	
ADDITIONAL CONSIDERATIONS	Environmental: Products that contain recycled content are readily available.	
AVAILABLE PRODUCT OPTIONS	Reusable Containers & Trays	Available in a variety of reusable food storage/takeout containers, compartmentalized and non-compartmentalized trays, and stadium cups
	Disposable Containers & Trays	Available in cups, deli containers, compartmentalized containers, and takeout containers
	Void Fill/Protective Packaging	No known void fill products available
END-OF-LIFE OPTIONS	Reuse	Reusable polypropylene products can and should be reused. Disposable polypropylene products are not typically intended or designed for reuse and are typically designed for disposability. Reuse of disposable polypropylene products will depend on customer preferences. Customers that receive disposable polypropylene takeout containers could opt to reuse these items.
	Recycle	Polypropylene is usually accepted for recycling in most areas but check local recycling guidelines. Lids may not be accepted. Items should be free of food and residue. Some recycling programs do not accept black plastic or clamshell containers.
	Compost	Commercial: No Home: No
	Trash	Yes, if recycling options do not exist




Polystyrene

(For the purposes of this document, this category **does not** include expanded polystyrene foam. This category only refers to hard plastic food service containers marked with a number 6 [Polystyrene–PS] that are **not foamed**).


Under [New York State's Expanded Polystyrene Foam Container and Polystyrene Loose Fill Packaging Ban](#), food service containers made from rigid polystyrene resin that has **not been** expanded, extruded, or foamed are not included in the ban and may still be used.

ABBREVIATION (IF APPLICABLE)	PS	
RESIN IDENTIFICATION CODE (IF APPLICABLE)	#6	
EXAMPLE PICTURE		
DESCRIPTION	Polystyrene is made from the styrene monomer. Products are available in rigid form or as expanded polystyrene foam. This document focuses on the rigid version that is not foam. The rigid version of polystyrene is generally hard but also brittle.	
USES	Specific microwave-, dishwasher-, and freezer-safe options were not found, although they may exist.	
COLOR/TEXTURE	Rigid hard plastic food service containers are generally smooth. Products may be clear, translucent, or colored.	
ADDITIONAL CONSIDERATIONS	Legislative: As of January 1, 2022, single-use, disposable foam food service containers used for prepared food and beverages, and loose fill packaging (packing peanuts) made of expanded polystyrene foam are banned from sale or distribution in New York State. The ban specifically covers the foamed or expanded versions of polystyrene. Under the law, hard plastic food service containers marked with a number 6 (Polystyrene–PS) are allowable.	
AVAILABLE PRODUCT OPTIONS	Reusable Containers & Trays	No known reusable products available
	Disposable Containers & Trays	Rigid hard plastic food service containers can be found as cold cups, plates, bowls, portion cups, and takeout containers.
	Void Fill/Protective Packaging	Rigid polystyrene can be found in films and sheets, but products specific to a void fill application were not found.
END-OF-LIFE OPTIONS	Reuse	Disposable rigid polystyrene items are not typically intended or designed for reuse and are typically designed for disposability. Reuse of this product will depend on customer preferences. Customers that receive rigid polystyrene takeout containers could opt to reuse these items.
	Recycle	Rigid polystyrene containers are generally not accepted in recycling programs. Check local recycling guidelines.
	Compost	Commercial: No Home: No
	Trash	Yes


Starch

<p>EXAMPLE PICTURE</p>		
<p>DESCRIPTION</p>	<p>Starch products are usually made from corn and can be found as molded takeout containers and void fill packing peanuts. Starch-based void fill packing peanuts are typically labeled as dissolvable in water.</p> <p>In some instances, sugars are extracted from corn or another starch to create containers and other items. Many corn-based containers created using this method are referred to as PLA. (See “PLA” for additional information.)</p>	
<p>USES</p>	<p>Container: Corn starch containers are most likely to be found as takeout containers. Some are available in options such as microwave-safe and hot- and cold-food safe. (See “PLA” for additional information.)</p> <p>Void Fill: Corn starch void fill packing peanuts have a similar purpose as expanded polystyrene packing peanuts. They are available in anti-static and abrasion resistant forms. (See “PLA” for additional information.)</p>	
<p>COLOR/TEXTURE</p>	<p>Container: Corn starch containers may be visually similar to bagasse or paper fiber containers and are available in an off-white color.</p> <p>Void Fill: Corn starch void fill packing peanuts have a similar appearance to traditional expanded polystyrene packing peanuts and are available in various colors, including pink, green, white, off-white, and beige.</p>	
<p>ADDITIONAL CONSIDERATIONS</p>	<p>Labeling: Some products may carry an ASTM D6400-19 or BPI label.</p> <p>Coloring: As of January 1, 2022, single-use, disposable foam food service containers used for prepared food and beverages, and loose fill packaging (packing peanuts) made of expanded polystyrene foam are banned from sale or distribution in New York State. Some expanded polystyrene loose fill packaging (packing peanuts) may come in a green color. Since starch-based packing peanuts may also be green, it is best to double check the material type before purchasing.</p>	
<p>AVAILABLE PRODUCT OPTIONS</p>	<p>Reusable Containers & Trays</p>	<p>No known reusable products available (See “PLA”)</p>
<p>AVAILABLE PRODUCT OPTIONS</p>	<p>Disposable Containers & Trays</p>	<p>Mostly found as takeout containers but other versions may exist (See “PLA”)</p>
<p>AVAILABLE PRODUCT OPTIONS</p>	<p>Void Fill/Protective Packaging</p>	<p>Mostly found as corn starch or other forms of starch packing peanuts. Film pouches labeled as compostable filled with starch packing peanuts labeled as compostable also exist.</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Reuse</p>	<p>Starch containers are typically too soiled to be reused. Starch packing peanuts could be reused if customers choose to reuse them.</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Recycle</p>	<p>Starch containers and starch packing peanuts should not be put in recycling bins.</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Compost</p>	<p>Commercial: This material may be accepted at some commercial composting facilities. Check with the facility to see if it’s accepted. Some facilities may consider this material a contaminant depending on product coatings.</p> <p>Home: Most claim to be dissolvable when water is added</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Trash</p>	<p>Yes, but packing peanuts should be reused</p>

Wheat Fiber and Wheat Straw

<p>EXAMPLE PICTURE</p>		
<p>DESCRIPTION</p>	<p>When wheat grain is harvested, it is separated from the stalk of the plant. The grains are used for food products and the stalk (also referred to as the straw) can be pulped and used for creating food service products.</p>	
<p>USES</p>	<p>Wheat straw used in food service applications can be found as a molded product in options that are grease- and cut-resistant and microwave- and freezer-safe. Options are also available for hot and cold foods.</p>	
<p>COLOR/TEXTURE</p>	<p>Typically beige, visually similar to bagasse and some molded paper fiber products</p>	
<p>ADDITIONAL CONSIDERATIONS</p>	<p>Coatings/Additives: Wheat straw and wheat fiber containers may contain PFAS. Please be aware that effective December 31, 2022, the prohibition on PFAS in food packaging (ECL Article 37, Title 2) will ban the distribution, sale, or offering for sale in New York State, of food packaging that contains intentionally added PFAS. Under this law, the term “intentionally added” means that the chemical “serves an intended function in the product component,” and, therefore, includes such chemicals as waterproofing or grease-proofing agents. This restriction applies to food packaging intended for direct food contact that is comprised mainly of paper, paperboard, or other materials originally derived from plant fibers. And further, under the definitions of this law, the term “package” includes items such as carrying cases, crates, cups, pails, trays, wrappers, bags, and tubs. As such, purchasers should avoid paper, paperboard, or plant-derived food packaging where PFAS have been added to provide waterproofing, grease-proofing, or other functions. The best source of information on whether food packaging contains intentionally added PFAS is likely to be the packaging manufacturer or supplier.</p> <p>Labeling: Some products may carry an ASTM D6868-21 or BPI label. Gluten-free manufacturer verification is available for some products. Check with the vendor regarding this specification.</p> <p>Materials: Some products may be a blend of sugarcane and wheat straw or a blend of wood fiber and wheat straw.</p>	
<p>AVAILABLE PRODUCT OPTIONS</p>	<p>Reusable Containers & Trays</p>	<p>No known reusable products, but reusable dinnerware made from a blend of wheat straw and polypropylene exists.</p>
<p>Disposable Containers & Trays</p>	<p>Disposable Containers & Trays</p>	<p>Available in bowls, plates, takeout containers, compartmentalized food trays, and catering trays</p>
<p>Void Fill/Protective Packaging</p>	<p>Void Fill/Protective Packaging</p>	<p>No known void fill products available</p>
<p>END-OF-LIFE OPTIONS</p>	<p>Reuse</p>	<p>No, this material is typically too soiled to be reused.</p>
<p>Recycle</p>	<p>Recycle</p>	<p>Currently, these products are not accepted by recycling facilities. Check your local recycling guidelines. Wheat straw blended products (e.g., wheat straw and polypropylene) should not be placed in recycling bins, even if they contain plastic.</p>
<p>Compost</p>	<p>Compost</p>	<p>Commercial: This material may be accepted at some commercial composting facilities. Check with the facility to see if it’s accepted. Some facilities may consider this material a contaminant depending on product coatings. Wheat straw blend products should not be put in compost because they typically contain plastic.</p> <p>Home: It may break down slowly in home compost bins. Wheat straw blend products should not be put in compost because they typically contain plastic.</p>
<p>Trash</p>	<p>Trash</p>	<p>Yes, if composting options do not exist</p>

Wood

EXAMPLE PICTURE		
DESCRIPTION	Wood food service products are available in options such as pine, aspen, acacia, and balsa.	
USES	<p>Container: Microwave- and oven-safe options are available. Some reusable wood food service ware is not dishwasher safe.</p> <p>Void Fill: Available as wood strands for cushioning and filler</p>	
COLOR/TEXTURE	Containers are typically smooth and color varies from light to dark depending on type of wood. Void fill tends to be light in color.	
ADDITIONAL CONSIDERATIONS	Labeling: Some products may have an FSC, SFI, or ASTM D6868-21 label.	
AVAILABLE PRODUCT OPTIONS	Reusable Containers & Trays	Available in plates, bowls, and trays
	Disposable Containers & Trays	Available in plates, bowls, food cones, food boats, and serving cups
	Void Fill/Protective Packaging	Available in wood strands for use as packaging filler
END-OF-LIFE OPTIONS	Reuse	Reusable wood products can and should be reused. Disposable wood products are not typically intended or designed for reuse and are typically designed for disposability. Reuse of disposable wood products will depend on customer preferences. Customers that receive disposable wood takeout containers could opt to reuse these items.
	Recycle	No
	Compost	<p>Commercial: Disposable wood products may be accepted at some commercial composting facilities. Check with the facility to see if it's accepted. Depending on coatings, some facilities may not accept this material.</p> <p>Home: Unknown; check product and vendor specifications</p>
	Trash	Yes, if composting options do not exist



Reusable Foam-Free Container Options

According to the United Nations (UN), the global “material footprint” increased by 70% between 2000 and 2017. One example of the number of materials consumed on an annual basis is evident in data cited by Clean Water Action, which highlights the 120 billion disposable cups of various material types used by Americans each year. Placed end to end, these cups would circle the equator more than 300 times. The importance of waste reduction and reuse is emphasized by the UN's Sustainable Development Goal 12 – Responsible Consumption and Production. One of the targets of this goal is to substantially reduce waste generation by 2030 through prevention, reduction, recycling, and reuse. One way to help in achieving this goal is through reduction of disposable food service ware.

Cost Savings and Resiliency

Many establishments and institutions use disposable food service ware due to the belief that switching to reusable options will lead to increases in labor costs. However, according to Upstream's *Reuse Wins* report, which reviewed and reported on life cycle studies comparing the environmental impacts of disposables versus reusables and economic data available on savings to businesses, businesses and 11 institutional dining programs tracked their costs when switching from disposables to reusables and all of them saved money—even when the costs of new products, labor, and more dishwashing were factored in. These cost savings are typically achieved within a few months to a year, and according to Clean Water Action, for small businesses they can range from \$3,000–\$22,000. Another primary benefit to businesses is that reusables allow businesses to be more resilient because they are less reliant on repeated purchasing of single-use, disposable containers and packaging, which results in reduced impacts from supply chain issues.



(Infographic source: Upstream *Reuse Wins* report)

Environmental Benefits

A variety of reusable options are available for on-site dining, including glass, ceramic, plastic, and stainless steel. In addition to the well-documented economic benefits of switching from single-use to reuse, the environment benefits as well. As cited in Upstream’s *Reuse Wins* report, reusable cups have a lower CO₂ footprint when compared to single-use choices. Reusable glass cups are good choices, but if they are not an option at your establishment or institution, reusable stainless-steel cups and ceramic cups are also good options. Reusable plates are also environmentally beneficial. Another benefit of reusables is that, in general, they use less water than disposables (Upstream *Reuse Wins*).

Reuse Systems

According to the 2020 Ellen MacArthur Foundation report, *Upstream Innovation*, the four consumer-facing reuse models are: refill at home, return from home, refill on the go, and return on the go. A variety of services for reusable food service ware are available for takeout and food delivery, such as the example pictured below, and apply some of these models. One option that food service establishments may utilize is a deposit or incentive-type system. In this structure, a customer would be given their takeout in a reusable container that needs to be returned to the restaurant

by the customer, with the incentive for return and loss prevention being the deposit. Other incentives may include discounts on future orders, an extra side with an order, or an additional topping for sandwiches, salads, smoothie bowls, or grain bowls. Other options for reusables for takeout include automated collection systems where participating establishments, such as universities, health care settings, and small businesses, supply reusable food service ware that can be dropped off at specific collection points for later cleaning and sanitizing. Returning containers to their collection points grants access to additional reusable containers when ordering takeout from participating locations. Note that local rules may apply.

The significant environmental benefits of reusables can be achieved in just 2–122 uses of a reusable product (Upstream *Reuse Wins*). Additional benefits of switching to reusables include building brand loyalty, reducing waste management and litter impacts within your community, and increased customer satisfaction. As stated by the Ellen MacArthur Foundation in the 2019 report, *Completing the Picture: How the Circular Economy Tackles Climate Change*, “The more a product is utilized, the larger the savings should be in terms of resources that are already embodied into the product such as material, labor, energy, and capital. Moreover, by keeping products and materials in use, GHG [greenhouse gas] emissions associated with new material production and end-of-life treatment are avoided.”



(Infographic source: Upstream *Reuse Wins* report)

References

[Ocean Conservancy's 2021 International Coastal Cleanup Report](#) – An annual report detailing coastal cleanups and a summary of the top litter items collected

[Association of Plastics Recyclers' Design® Guide](#) – Guidance to help packaging designers create packaging compatible with recycling systems

[Association of Plastics Recyclers \(APR\) and the Foodservice Packaging Institute's \(FPI\) Design Guide for Foodservice Plastics Recyclability](#) – A guide developed in partnership between APR and FPI to provide a basic education on the recycling process and to support decision-making related to packaging that impacts recyclability

[Biodegradable Products Institute \(BPI\)](#) – Nonprofit association with a certification program for compostable products and packaging. A listing of BPI certified products is available on the website.

[Buy Recycled Products Directory](#) – Guide to purchasing products made with post-consumer recycled content. Use the green buttons at the top to click “More” and then “Packaging” to limit the results to packaging options.

[Buy Recycled Resources](#) – Listing of resources containing information on green purchasing and best practices for purchasing products

[Center for Environmental Health's Database of Single-Use Food Service Ware Products Tested for Fluorinated Additives](#) – Database providing a listing of products tested for additives to food service ware products

[Center for Environmental Health's Single-Use Container Resources](#) – Resources to guide consumers toward healthier food ware purchasing

[City of San Jose's Alternatives to EPS Food Containers – 2015 Reference Guide](#) – A guide developed to assist with alternatives to EPS food containers. The document contains product information, a material glossary, and a vendor listing.

[City of San Jose's Alternatives to Foam Food Containers – 2015 Buyers' Guide](#) – A supplemental guide developed to assist with alternatives to EPS food containers. The document contains alternatives to EPS food container products and price listings.

[Clean Water Action's Fact Sheet: Business Cost Impacts from Disposable Food Service Items](#) – A fact sheet outlining the cost breakdown of disposable food service ware items used for typical to-go meals

[EcoWho's Letter E - Eco Terms & Definitions \(ecowho.com\)](#) – Glossary of environmental terms and definitions

[Ellen MacArthur Foundation's Completing the Picture: How the Circular Economy Tackles Climate Change](#) – A report highlighting the need for a circular economy in order to meet climate targets

[Ellen MacArthur Foundation's Upstream Innovation: A Guide to Packaging Solutions](#) – A guide focused on packaging design, with strategies to help reduce packaging waste before it's created

[Forest Stewardship Council](#) – Certification that ensures products come from responsibly managed forests that provide environmental, social and economic benefits

[Forest Stewardship Council Certified Products](#) – Listing of products certified by FSC to be responsibly sourced from forest materials

[Green Glossary of Terms and Definitions](#) – Glossary of green terms from the International Association of Assembly Managers (IAVM)

[GreenScreen® For Safer Chemicals](#) – Certification standard and resources for food service ware and other consumer products

[How to Buy Recycled webinar](#) – Webinar providing information on how to buy recycled and why it is important

[Manhattan Solid Waste Advisory Board's foam alternatives webpage](#) – Suggested products available for use as a substitute for EPS foam products

[New York State's EO 4 Specification: Food Service Containers and Wrappers \(ny.gov\)](#) – Guidance document to assist New York State agencies and others in increasing sustainable practices in the State of New York's food service operations by encouraging the purchase and use of reusable food service containers and establishing minimum specifications for single-use food service containers and wrappers.

[New York State's EO 4 Specification: Single Use Food Service Utensils \(ny.gov\)](#) – Guidance and specifications to assist New York State agencies and others in choosing single-use food service utensils

[Plastic Film Recycling](#) – A how-to guide on recycling plastic films

[Plastics Make it Possible® Types of Plastics](#) – Information regarding different types of plastics and their functionality and uses

[Recycle Right NY](#) – An inclusive resource on how to recycle and what materials can be recycled in local programs across New York State

[Re-Think Disposables' Reusables Cost Savings Calculator](#) – Calculator designed to show how much can be saved by switching from disposable service ware to reusable

[Reuse Business Directory](#) – Comprehensive directory of businesses that incorporate reusable products into their business model

[Safer Chemicals Healthy Families' Take Out Toxics: PFAS Chemicals in Food Packaging Report](#) – Report on PFAS found in food packaging

[Safety of Reusables](#) – Q&A guide on the safety of incorporating reusables as a replacement to disposable service ware

[Surfrider's Ocean Friendly Restaurant Program](#) – Listing of restaurants committed to cutting out single-use plastic waste

[Sustainable Forestry Initiative's Certified Products](#) – Comprehensive database of relevant information about certificate holders, label use, and products

[Sustainable Forestry Initiative's Independent Certification Bodies](#) – Sustainable Forestry Initiative provides third-party certification whose mission is to advance sustainability through forest focused collaboration.

[Sustainable Forestry Initiative's Standards Guides](#) – Guides outlining the standards, rules, procedures, and guidance for the Sustainable Forestry Initiative certification programs

[Third-Party Certifications Verifying Post-Consumer Recycled Content](#) – List of organizations verifying post-consumer recycled content in products

[U.S. Composting Council \(USCC\) Compostable Products](#) – *A Primer for Compost Manufacturers* – A guide to help composters understand different types of compostable products and the certification processes, regulations, and labeling related to these products

[Understanding Packaging Scorecard](#) – A tool to assess the sustainability of common food ware and food packaging choices

[United Nations' Sustainable Development Goal 12](#) – An overview and resources related to the UN's Sustainable Development Goal of responsible consumption and production.

[Upstream's Reuse Wins at Events report](#) – Life cycle analysis of reusable and single-use cups

[Upstream's Reuse Wins report](#) – The environmental, economic, and business case for transitioning from single-use to reuse in food service

[Upstream's Reuse Savings Calculator](#) – Calculator to determine the cost savings of switching from single-use packaging to reusable

[USDA BioPreferred Program](#) – Guide with the goal to increase the purchase and use of bio-based products. A product directory is also available on the website.



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