

Green Guide

for foodservice packaging

Aloha,

Our company is committed to providing you with environmentally friendly options for your packaging and paper needs. We have a range of items that are biodegradable, compostable, and recyclable.

Recognizing the social responsibility we have to care for our Island home, we are proud to offer you a variety of options. We keep in stock: cups, straws, containers, cutlery, soaps, and cleaners made from corn, potatoes and even bamboo. These materials are formed into products that mimic the qualities of paper and plastic. There are products that are ideal for hot or cold, liquid or solid, and greasy or dry foods.

As patrons are increasingly committed to protecting their environment, their interest for biodegradable materials will increase. Customers who choose to use available environmentally friendly products will distinguish themselves. Serve your next customer with products that will contribute to reuse and renewal of the earth's resources, and reduce dependency on foreign oil.

We hope our Green Guide provides you with ideas to enhance your business and add value for your patrons!

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BAGASSE (SUGAR CANE)

Bagasse is a readily renewable resource - it's sugar cane stalk! The dry, fibrous residue, remaining after the extraction of juice from the crushed stalks of sugar cane, is used as a source of cellulose for paper.



Composting is required for biodegradation - products will biodegrade within 30 days in a commercial composting facility. When using a 100% natural fiber product like Bagasse, it will "relax" somewhat when it has hot liquids in it and stiffen back up as it cools.

Benefits: 100% biodegradable & compostable - saves trees, renewable and reclaimed, grease resistant, microwave and freezer safe. Feels like paper, but is less expensive. Heat safe to 212° F. Wood fiber free.

BIOPLASTICS

Bioplastics are derived from renewable raw materials like: starch (e.g. corn, potato, tapioca etc), cellulose, soy protein, lactic acid etc. They are not hazardous in production, and decompose back into carbon dioxide, water, biomass etc. when discarded.



POLYLACTIC ACID (PLA)

Poly(lactic acid) (PLA) is a biopolymer derived from lactic acid that is produced by the fermentation of corn sugars. Less energy is needed to manufacture the PLA than the petroleum based lining it replaces. Sugars/ starches are extracted from the corn and converted into a polymer. This polymer is made into a resin that can be converted or thermoformed into usable products. It is made from 100% USA grown corn. PLA is completely compostable under commercial composting conditions in 45-60 days.

Benefits: Clear, plastic like texture – looks and feels like plastic. Saves 50% of resources vs. conventional plastics. Compostable. Made from renewable resources. Designed for cold food or beverages only. Heat stable to 110° F. Freezer safe. Sterilized and sanitized, conforms to U.S. FDA guidelines.

Please Note: Bioplastics have a melting point of approximately 115-131° F.

MOLDED FIBER

Molded Fiber is a packaging material, typically made from 100% recycled corrugated fiberboard and newspaper. It is used for protective packaging or for food service trays and beverage carriers. Molded pulp is also commonly referred to as molded fiber. Other typical uses are end caps, trays and clamshell containers.

Benefits: Heavy duty, biodegradable, and compostable. Grease & water resistant. Microwaveable.

PLA LINED PAPERBOARD

PLA replaces petroleum based liners. Creates leak proof lining for hot cup usage. Offers a more renewable alternative to conventional products. Modified PLA is able to withstand heat.

PLANT STARCH MATERIAL (PSM)

Created from 80% non-GMO corn and 20% other biodegradable fibers.

Benefits: Functional for hot and cold foods.

POTATO

GMO Free (Genetically Modified Organics). Biodegradable.

Benefits: Suitable for hot and cold foods. Heat stable to 375°F. Freezer safe and micro-warmable for reheating use only.

Bridge-Gate bridge-gate.com

Bridge-Gate is proud to offer a collection of biodegradable tableware and food take-out packaging. We offer:

- Dinnerware, with models offered in standard and premium versions
- Hingeware (standard and premium) for all food packaging needs
- Foil for environmentally friendly food preservation and packaging



Duro Bag durobag.com

A paper bag from Duro is the environmentally friendly choice that customers can feel good about using. Paper bags are easily recyclable and in most cases can even be made from recycled paper. With many options to suit nearly every foodservice need, Duro will be happy to help you choose the right paper bag for your restaurant.



Earth Choice from Pactiv pactiv.com

Pactiv Corporation (NYSE: PTV), a leader in the food service packaging industry, has EarthChoice™ brand of nearly 80 sustainable packaging products including cups, hinged-lid containers, plates, and straws, for disposable food service needs. The comprehensive line of EarthChoice™ products offers a variety of features including sustainable and renewable resources, reduced amounts of plastics, less fossil fuel to manufacture, post consumer recycled content, certified compostable and chlorine-free processing. EarthChoice™ products include cold drink cups, portion cups, and lids; hinged lid and deli containers; and straws made from PLA (Polylactic Acid), a natural plastic material sold under the name Ingeo™. This 100 percent annually renewable resource is derived solely from plants, which is preferable to some customers. The EarthChoice™ line also includes hot cups and soup cups lined with PLA.



Eco-Products ecoproducts.com

Eco-Products sells over 100 different products to all fifty states, Canada and Mexico. They grew from a small eco-friendly distributor into the most recognized brand of environmental foodservice products nationwide, employing more than forty employees and always 'walking the talk'. Eco-Products strives to make a positive impact on the global community by offering a wide selection of high quality, environmentally friendly products at competitive prices. Choose from: cups, lids, containers, cutlery, bowls, bags, and napkin products in a variety of eco-friendly materials.



Reynolds www.reynoldspkg.com

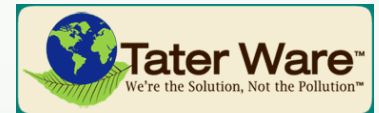
Reynolds® Food Packaging Foil From 100% Recycled Aluminum. This ground-breaking product is made with 100% recycled aluminum and has the same quality and strength as standard Reynolds Aluminum Foil.



Meet sustainability Initiatives without compromising performance. Made with a mix of post-consumer and post-industrial aluminum, recycling aluminum takes 80% less energy to make than creating foil from virgin or mined material.

Taterware bdfs.net/products/TaterWare

Taterware has a broad variety of products including clam shells, trays, plates, cutlery, cups, and lids. All containers are designed with extra sturdy construction, bio based, and FDA approved for direct food contact.



Tork www.torkusa.com

Our Tork systems provide hygienic solutions that promote proper handwashing and help keep people healthy. One-at-a-time dispensing reduces paper usage and waste. Tork helps you reduce cost, stay healthy, and save the planet.



World Centric worldcentric.org/biocompostables

World Centric aims to provide high quality biodegradable products. We use renewable resources, such as: sugarcane, reed, corn, and potato starch. Our every action has an impact on the well-being of our planet and our everyday decisions can help create a better world for all.



World Centric Biocompostables provide eco-friendly alternatives to everyday consumption choices, which can help minimize social and economic inequalities, reduce the impact of our consumption on the environment, and help create a better and sustainable world.

Biodegradable

A material will decompose into naturally occurring, harmless components with exposure to air, sunlight, and/or moisture. No timelines are currently established for breakdown.

Bioplastics

Bioplastics are made from natural materials. They are carbon neutral due to the reduced amounts of fossil fuels used to make it, and the consequent lowered amount of CO₂ emissions.

Biodegradable Plastic

Plastic which will degrade from the action of naturally occurring microorganisms, such as bacteria, fungi, etc. over a period of time. Note that there is no requirement for leaving "no toxic residue", and as well as no requirement for the time it needs to biodegrade.

Compostable

Product can be placed into a composition of decaying biodegradable materials, and eventually turns into a nutrient-rich material. Certification standards require specific timelines in order for products to be called compostable.

Compostable Plastic

Plastic which is "capable of undergoing biological decomposition in a compost site as part of an available program, such that the plastic is not visually distinguishable and breaks down to carbon dioxide, water, inorganic compounds, and biomass, at a rate consistent with known compostable materials (e.g. cellulose) and leaves no toxic residue".

Degradable Plastic

Plastic which will undergo a significant change in its chemical structure under specific environmental conditions resulting in a loss of some of its properties. Please note, there is no requirement that the plastic has to degrade from the action of "naturally occurring microorganism" or any of the other criteria required for compostable plastics.

Eco-toxicity

The biodegradation does not produce any toxic material, and the compost can support plant growth.

Environmental Sustainability

Satisfying the needs of the present without diminishing the ability of future generations to meet their needs.

Fair trade

Decent price paid to growers or farmers.

Food Miles

Distance product travels from where it is sourced or grown to the consumer.



Low Carbon Footprint

Product does not produce a huge amount of CO₂, taking all factors into account – its production, its use, how it gets here, and embodied energy.

Low Carbon Emissions

The production, use and disposal of product emits low levels of carbon.

Recyclable

Materials are broken down (melted or pulped) into a basic substance from which a new product can be formed. It is important to be clear about the meaning between the four terms.

Recyclable - All paper is recyclable. The "recycling symbol" has very little meaning, as it can be used on items which can be "recycled", but may have zero recycled content.

Recycled - Paper which is designated as "recycled" can be a mixture of virgin wood fiber, pre-consumer waste or post-consumer waste. There are two types of recycled paper— pre-consumer recycled paper and post consumer waste recycled paper.

Pre-consumer content - paper made out of paper scraps and trimmings left over from the paper manufacturing process. These paper scraps and trimmings are easiest to recycle, as they do not have to be collected, separated, de-inked, etc.

Post consumer waste (PCW) - made out of paper which has been used by the end consumer and then is collected for recycling from various recycling programs. This is the best paper to buy, as it uses and creates demand for paper which would normally end up in the landfill, and no trees are cut down for making the paper.

The actual percentage of the recycled and post-consumer recycled content is important to note when buying paper. It is optimal to find paper products, which are 100% PCW recycled, and are either unbleached or bleached without using chlorine or chlorine derivatives.

Renewable Resources

Resources that are created or produced at least as fast as they are consumed, so that nothing is depleted.

Re-usable

At the end of its useful life product can be refilled or used for another purpose.

Sustainable

The materials used in this product come from sustainable sources - for every one used, one is planted, or grows naturally. Materials can be used with the knowledge that they will be replenished.








Zero Waste

Designing and managing products and processes to reduce the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing Zero Waste will eliminate all discharges to land, water, or air that may be a threat to planetary, human, animal or plant health.





Learn common properties & recycle uses of traditional plastic

	Polyethylene Terephthalate (PET)	High Density Polyethylene (HDPE)	Polyvinyl Chloride (PVC)	Low Density Polyethylene (LDPE)	Polypropylene (PP)	Polystyrene (PS)	Other Plastics
Symbol	 PETE	 HDPE	 V	 LDPE	 PP	 PS	 OTHER
Clarity	Clear	Translucent	Clear	Translucent	Translucent	Clear	Plastic ID Code "7" is for other plastics, including acrylonitrile butadiene styrene acrylic, polycarbonate, polylactic acid, nylon, and fiberglass.
Moisture Barrier	Fair to Good	Good to Excellent	Fair	Good	Good to Excellent	Poor to Fair	
Oxygen Barrier	Good	Poor	Good	Poor	Poor	Fair	
Max. Temperature	120F	145F	140F	120F	165F	150F	
Rigidity	Moderate to High	Moderate	Moderate to High	Low	Moderate to High	Moderate to High	
Resistance to Impact	Good to Excellent	Good to Excellent	Fair to Good	Excellent	Poor to Good	Poor to Good	
Resistance to Heat	Poor to fair	Good	Poor to Fair	Fair	Good	Fair	
Resistance to Cold	Good	Excellent	Fair	Excellent	Poor to Fair	Poor	
Resistance to Sunlight	Good	Fair	Poor to Good	Fair	Fair	Poor to Fair	
Recycle Uses	Polyester fibres, thermoformed sheet, strapping, and soft drink bottles	Bottles, grocery bags, recycling bins, agricultural pipe, base cups, car stops, playground equipment, and plastic lumber	Pipe, fencing, and non-food bottles	Plastic bags, various containers, dispensing bottles, wash bottles, tubing, and various molded laboratory equipment.	Auto parts, industrial fibers, and food containers.	Desk accessories, cafeteria trays, toys, video cassettes and cases, and insulation board and other expanded polystyrene products (e.g., Styrofoam).	

Energy Efficiency & Conservation

Energy efficient technologies and conservation practices exist for: lighting, heating, ventilation, air conditioning, foodservice appliances, office equipment, and transportation.

Water Efficiency & Conservation

Water efficient technologies and conservation practices exist for: foodservice appliances, equipment, and landscaping.

Recycling & Composting

Recycling services exist for many waste products such as: glass, plastic, metal, cardboard, mixed paper, grease, ink, and toner cartridges. Food waste can be diverted from landfills and made into nutrient-rich soil through the use of a composting service or an on-site system.

Sustainable Food

Sustainable food products support the long-term maintenance of ecosystems and agriculture for future generations. Organic agriculture prohibits the use of toxic synthetic pesticides and fertilizers, irradiation, sewage sludge, and genetic engineering. Locally grown foods reduce the amount of pollution associated with transportation primarily by fossil fuels. Plant-based foods require fewer natural resources and create less pollution per calorie consumed.

Pollution Prevention

Pollution prevention is achieved through: source reduction, reuse, or improving operational practices.

Recycled, Tree-Free, Biodegradable & Organic Products

Recycled products are made from materials that are collected from post-consumer or post-industrial waste sources. Tree-free products are made from alternative plant sources such as hemp or kenaf. Biodegradable products are capable of being decomposed by biological agents, especially bacteria. Organic products are grown without the use of toxic synthetic pesticides and fertilizers, irradiation, sewage sludge, and genetic engineering.

Chlorine-Free Paper Products

Chlorine-free paper products are unbleached or whitened with alternatives such as hydrogen peroxide, oxygen, and ozone. The term "Process Chlorine-Free (PCF)" identifies recycled paper that is unbleached or bleached without the use of chlorine compounds. The term "Totally Chlorine-Free (TCF)" identifies virgin paper that is unbleached or bleached without the use of chlorine compounds. The term "Elemental Chlorine-Free (ECF)" identifies paper that is bleached without the use of elemental chlorine (but may use chlorine compounds).

Non-Toxic Cleaning & Chemical Products

Non-toxic cleaning and chemical products are: biodegradable, free of hazardous ingredients, and are safe for people, animals, and the environment when used properly.

Green Power

Electricity and power is available from renewable resources such as wind, solar, geothermal, small hydro, and biomass. These energy sources cause dramatically less air pollution and environmental damage compared to fossil fuel, nuclear, and large-scale hydroelectric energy sources.

Green Building & Construction

Green design and construction practices significantly reduce or eliminate the negative impact of buildings on: the environment, occupants, and the local community.

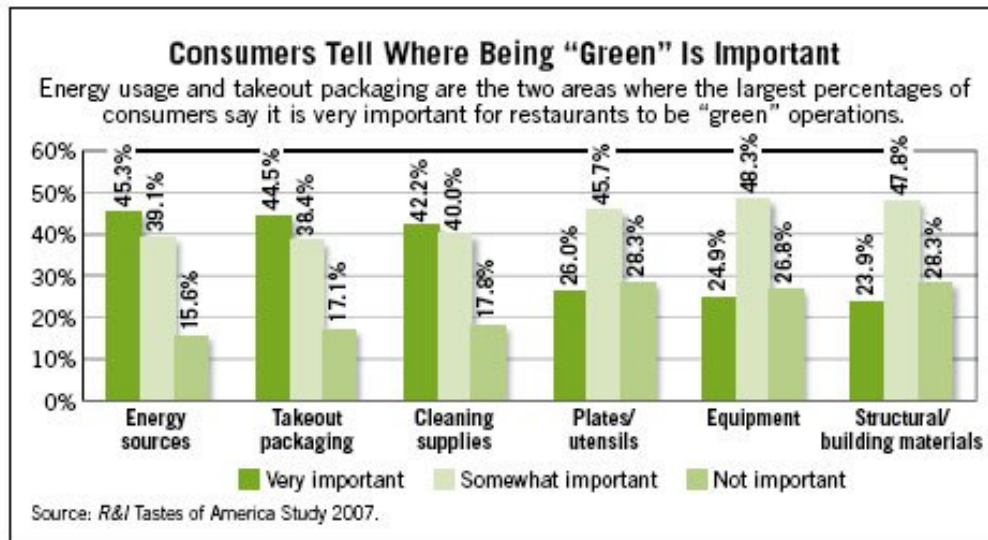
Education

Receive GRA's book, [Dining Green: A Guide to Creating Environmentally Sustainable Restaurants and Kitchens](#), which explains the environmental impact of the restaurant industry and a path toward ecological sustainability. Restaurants also receive signs for: recycling, energy and water conservation, and to remind staff of the 4 Environmental Steps for the year.



Restaurants & Institutions Taste of America Study

Review patron insights from this 2007 study by R&I Magazine, kindly provided from their website at www.ri.com



What "Green" Actions Do Consumers Value?

R&I's Tastes of America Study asked consumers how important they consider a variety of actions a restaurant can take to be more "green." Recycling efforts are considered most important.

ACTION	VERY IMPORTANT	SOMEWHAT IMPORTANT	NOT IMPORTANT
Has taken steps to improve recycling of food and paper waste	49.9%	37.5%	12.6%
Uses environmentally friendly cleaning cleaning supplies	45.6	40.8	13.6
Uses biodegradable materials for cutlery, napkins, beverage cups or takeout packaging	45.3	41.3	13.4
Has implemented design changes, such as adding thermal windows or ceiling fans, to conserve electricity, gas or oil	38.8	46.4	14.8
Has taken steps to reduce its use of electricity, gas or oil for cooking, heating or cooling	38.7	47.1	14.2
Purchases and serves organically grown or raised foods	24.0	51.2	24.8



Energy Saving Ideas

- Utilize more-energy-efficient lighting. Use time and/or motion sensed lights and signage in: restrooms, pantries, and freezer units
- Install timers for temperature control on air conditioning systems and water heaters**
- Install low-flow faucet adaptors and/or automatic turn-off faucets, and low-flow toilets. Of the total water usage in restaurants, restroom usage ranges from 50 to 80%
- Provide drink mugs for crew members to help reduce paper use**
- Pursue LEED certified building design
- Use hybrid vehicles for delivery and catering**
- Go paperless with internet faxing
- Unplug appliances when not in use. Did you know that many appliances continue to drain electricity (called "vampire power" - get it?), even when not in use, but still plugged into the wall outlet? By simply unplugging these devices, you can have a big impact on your electric bill. An easier way to do this is to plug these items into a power strip, then turn off the power strip when you leave the room**
- Invest in Energy Star approved appliances
- Evaluate eco friendly food preparation with accelerated and efficient cooking options. Simple changes in processes or equipment can mean big differences in energy and enhance productivity. Consider combi ovens, Turbo Chef/Merry Chef ovens, pressure braising pans, oil filtration systems and new steamers**
- Using equipment with smaller footprints and less ventilation translate to reduced emissions and greenhouse gasses
- Communicate with staff and customers what you are doing to make a difference- also with awareness, create an opportunity to share ideas**
- Use eco friendly cleaning supplies and eco friendly paper products
- Offer environmental education on children's menus**
- Serve eco-conscious food and packaging options
- Provide earth friendly uniforms made of bamboo or organic cotton**
- Print menus with recycled paper
- Recycle used cooking oil for use in biodiesel fuel production**
- Scrape leftovers into a waste container before washing
- Clean refrigerator coils and change air filters regularly**

Discover these great eco friendly resources!

Green Restaurant Association dinegreen.com

The Green Restaurant AssociationSM (GRA), a national non-profit organization, provides services in: research, consulting, education, marketing, and community organizing. The GRA utilizes a collaborative strategy that involves: restaurants, manufacturers, vendors, grassroots organizations, government, media, and restaurant customers. The GRA's model provides a convenient way for all sectors of the restaurant industry, which represents 10% of the U.S. economy, to become more environmentally sustainable.



Green Biz greenbiz.com



Is the leading online news and information resource on how to align environmental responsibility with business success. It offers more than 8,000 resources, including daily news and feature stories, reports, checklists, case studies, links to organizations, technical assistance programs, government agencies, and recognition programs. Its free e-newsletter, GreenBuzz, reaches more than 20,000 professionals every week.

Green Seal greenseal.org

This seal signifies that a product or service has been tested according to science-based procedures, that it works as well or better than others in its class, and that it has been evaluated without bias or conflict of interest. The Green "Seal of Approval" has come to stand for reliability, fairness, and integrity. To earn the coveted Green Seal, a product must meet the Green Seal environmental standard for the category as demonstrated by rigorous evaluation, testing and a plant visit.



Energy Star energystar.gov

As much as 80 percent of the \$10 billion annual energy bill for the commercial food service sector does no useful work. These lost energy dollars are often wasted in the form of excess heat and noise generated by: inefficient appliances, heating ventilation and air conditioning systems, lighting, and refrigeration. To help counter these costs, ENERGY STAR helps restaurant owners and operators improve the performance of their facilities and equipment while reducing energy costs. Restaurants that invest strategically can cut utility costs 10 to 30 percent without sacrificing service, quality, style or comfort — while making significant contributions to a cleaner environment.



LEED: U.S. Green Building Council usgbc.org

The U.S. Green Building Council is a 501(c)(3) non-profit community of leaders working to make green buildings available to everyone within a generation.

