



Current Activities and Future Plans: Sustainable Foodservice Ware

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**Exploring the Value Chain of Food & Beverage Packaging
Washington, DC**

2012 Activities

(SBC/Institute for Local Self-Reliance)

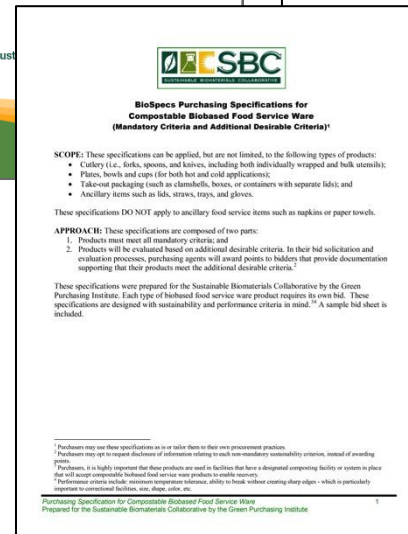
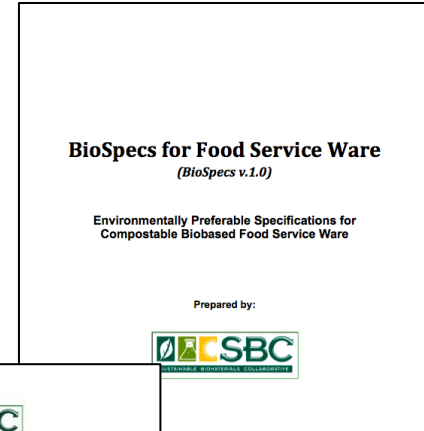
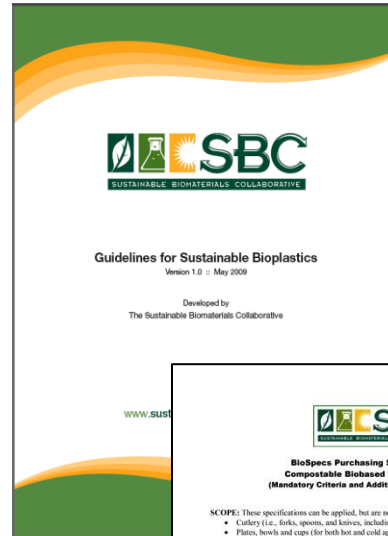
- Partnered with the Green Purchasing Institute to beta-test purchasing specs for compostable foodservice ware
- Developed guide for manufacturers to assess conformance to our environmentally preferable criteria for biobased compostable foodservice ware
- Pursued partnership with 3rd party certifier for Biospecs
- Partnered with Elemental Impact to assist Atlanta Airport in implementing new concessionaire contract provision
- Documented venues using and composting biobased ware
- Promoted policies to grow composting infrastructure
- Involved in local school project to pilot tray washer in lieu of styrofoam lunch trays

Sustainable Biomaterials Collaborative: Market-based tools

- Sustainable feedstocks / Sustainable agriculture
- Green Chemistry / Clean Production
- Closed Loop Systems / Cradle to Cradle / Zero Waste



**WORKING
LANDSCAPES
CERTIFICATE**






2011



"Just because it's biobased, doesn't make it green"

Criteria: Biomass Production

Environmentally Preferable Specifications for Compostable Biobased Foodservice Ware (Biospecs)

Criteria	Recognition Level
<p>BIOBASED (ORGANIC) CARBON CONTENT</p> <p>Non-cutlery products must be >90%</p> <p>Cutlery products must be >70%</p> <p>Non-cutlery products must be >95%</p> <p>Cutlery products must be >85%</p> <p>All products must be >99%</p>	 <p>Bronze Bronze Silver Silver Gold</p>
<p>GENETICALLY MODIFIED (GM) PLANTS</p> <p>No plastics may be made directly in plants</p> <p>GM crops allowed in field with offsets</p> <p>No GM biomass allowed in field</p>	 <p>Bronze Bronze Silver</p>
<p>SUSTAINABLY GROWN BIOMASS</p> <p>Forest and brushland-derived biomass</p> <p>Agricultural biomass</p>	 <p>Bronze Gold</p>
<p>FEEDSTOCKS ARE FROM PERENNIAL CELLULOSIC CROPS OR AG CO-PRODUCTS</p>	<p>Gold</p>
<p>PROTECTION OF BIOMASS PRODUCTION WORKERS</p>	<p>Gold</p>

Criteria: Manufacturing

Environmentally Preferable Specifications for Compostable Biobased Foodservice Ware (Biospecs)

Criteria	Recognition Level
NO ORGANOHALOGENS ADDED	Bronze
ADDITIVES AND CONTAMINANTS OF HIGH CONCERN Declare whether nanomaterials present Eliminate use of toxic additives No Proposition 65 chemicals No chemicals of high concern All additives must be tested for hazards	Bronze Silver Gold Gold
PAPER- OR PAPER-BASED PRODUCTS Non-food-contact products: 100% recycled, 40% post-consumer Food-contact products Cups: 10% post-consumer recycled content Other food-contact products: 45% recycled content	Bronze Gold Bronze
NO CHLORINE OR CHLORINE COMPOUNDS	Silver
PROTECTION OF MANUFACTURING PRODUCTION WORKERS	Gold
LOCAL OWNERSHIP AND PRODUCTION	Gold

Criteria: End of Life

Environmentally Preferable Specifications for Compostable Biobased Foodservice Ware (Biospecs)

Criteria	Recognition Level
PRODUCT MUST BE COMMERCIALY COMPOSTABLE	Bronze
PRODUCT LABELED FOR COMPOSTABILITY “Commercially Compostable” if facility exists Verification agency logo on product Distinguishable labeling Additional labeling if facility does not exist	Bronze Bronze Bronze Bronze
COMPOSTABLE AT MESOPHILIC TEMPS / IN BACKYARD OR HOME COMPOSTING	Silver
BIODEGRADABLE IN AQUATIC ENVIRONMENT Marine biodegradable Freshwater biodegradable	Gold Gold



Purchasing Specifications for Biobased Compostable Foodservice Ware



BioSpecs Purchasing Specifications for Compostable Biobased Food Service Ware (Mandatory Criteria and Additional Desirable Criteria)¹

SCOPE: These specifications can be applied, but are not limited, to the following types of products:

- Cutlery (i.e., forks, spoons, and knives, including both individually wrapped and bulk utensils);
- Plates, bowls and cups (for both hot and cold applications);
- Take-out packaging (such as clamshells, boxes, or containers with separate lids); and
- Ancillary items such as lids, straws, trays, and gloves.

These specifications DO NOT apply to ancillary food service items such as napkins or paper towels.

APPROACH: These specifications are composed of two parts:

1. Products must meet all mandatory criteria; and
2. Products will be evaluated based on additional desirable criteria. In their bid solicitation and evaluation processes, purchasing agents will award points to bidders that provide documentation supporting that their products meet the additional desirable criteria.²

These specifications were prepared for the Sustainable Biomaterials Collaborative by the Green Purchasing Institute. Each type of biobased food service ware product requires its own bid. These specifications are designed with sustainability and performance criteria in mind.^{3,4} A sample bid sheet is included.

¹ Purchasers may use these specifications as is or tailor them to their own procurement practices.

² Purchasers may opt to request disclosure of information relating to each non-mandatory sustainability criterion, instead of awarding points.

³ Purchasers, it is highly important that these products are used in facilities that have a designated composting facility or system in place that will accept compostable biobased food service ware products to enable recovery.

⁴ Performance criteria include: minimum temperature tolerance, ability to break without creating sharp edges - which is particularly important to correctional facilities, size, shape, color, etc.

- Bid specs for purchasers
- Presents baseline mandatory criteria
- Bidders can earn points for products meeting beyond baseline desirable criteria.



Sustainability Criteria & Tools

SUSTAINABILITY CRITERIA & TOOLS

> Overview

[Sustainability Guidelines](#)

[Working Landscape Certificates](#)

[Manufacturing Specifications](#)

[Purchasing Specifications](#)

Plastics derived from fossil fuels are nonrenewable, may leach toxic chemicals, can harm marine life, and increase reliance on imported fossil-fuel-based feedstocks. The development of bioplastics and other biobased materials hold great promise to mitigate many of these problems by offering the potential for renewability, biodegradation, and a path away from harmful chemicals. They are not, however, an automatic panacea.

The Sustainable Biomaterials Collaborative (SBC) has developed tools to help producers, purchasers, and consumers navigate the maze of biobased products entering the marketplace.

The Guidelines for Sustainable Bioplastics: provide a roadmap for the development and continuing improvement of biobased plastics.

The BioSpecs for Food Service Ware: Environmentally Preferable Specifications for Compostable Biobased Food Service Ware: define the criteria for manufacturers to determine the sustainability of their compostable food service ware.

The Conformance Guide: BioSpecs for Food Service Ware: lists the verification documents necessary for manufacturers to substantiate conformance to the *BioSpecs* criteria.

The Purchasing Specifications for Compostable Biobased Food Service Ware: is a sample bid document that purchasers can use when going to bid for compostable food service ware.

SUSTAINABILITY CRITERIA

- [Overview](#)
- [Sustainability Guidelines](#)
- [Working Landscape Certificates](#)
- [Manufacturing Specifications](#)
- [Purchasing Specifications](#)

LIFECYCLE ISSUES

EARLY ADOPTERS

EMERGING MATERIALS AND PRODUCTS

Practice Greenhealth's Greening the Supply Chain[®] Initiative



Suggested Environmental Considerations for Disposable Food Ware

The suggested environmental disclosure questions may be used in your RFI/RFP to help inform your purchasing decisions. These questions can be applied to cutlery; plates, bowls and cups (for hot and cold applications); take-out packaging (such as clamshells, boxes or containers with separate lids); and ancillary items such as lids, and straws). These questions would not pertain to other food service items such as paper napkins and paper towels.

#	Topic	Environmental Questions	Preferred Answer	Definition	Rationale
1. (a)	Chemicals	Is this product free of intentionally added engineered nanomaterials? (Yes/No)	Yes	Nanotechnology is the science of manipulating matter at the molecular scale to build structures, tools, or products, known as nanomaterials. Nanomaterials are those whose small scale imparts unique physical properties.	The risks and benefits of this emerging technology are still being discovered; yet the development, use, and manufacturing of nanomaterials are being conducted with little transparency and inadequate regulatory oversight. This is particularly concerning to the food industry where human exposure is virtually guaranteed. ⁱ
1. (b)	Chemicals	If "no" is the answer to 1(a), has this product been either (1) registered with the EPA or the Project on Emerging Nanotechnologies in the U.S. or, (2) at a minimum, has the product been added to any voluntary reporting programs including, but not limited to, the U.S. EPA's Nanoscale Materials Stewardship Program and the United Kingdom's Department for Environment, Food and Rural Affairs (DEFRA) Voluntary Reporting Scheme for Engineered Nanoscale Materials? (Yes/No)	Yes	The Environmental Protection Agency (EPA) found that approximately 90% of the different nanoscale materials that are likely to be commercially available for industry were not reported under its voluntary reporting program, and nearly two-thirds of the chemical substances from which commercially available nanoscale materials are based were not reported either. ⁱⁱ Thus, the government and, in turn, industry does not have full access to either the potential existence of nanomaterials or the risks related to the nanomaterials enhancing products. ⁱⁱⁱ	This transparency and disclosing information to stakeholders is important in order to mitigate its exposure to risks related to the use of nanomaterials in food and food packaging. ^{iv}
2.	Chemicals	Is this product free of fluorine or fluorinated compounds (such as	Yes	Perfluorinated compounds (PFCs) are family of compounds (including Perfluorooctane sulfate	PFCs are extremely persistent and bioaccumulative chemicals. ^v How we

Documenting Early Adopters

Sustainable Plastics?



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Early Adopters Using and Composting Bioproducts

Georgia: Georgia World Congress Center

Location(s): Atlanta, GA

Summary:

The Georgia World Congress Center is the fourth largest convention center in the USA. They are increasingly diverting compostables and educating guests how to properly identify and sort materials.

Products and Brands Composted:

The Georgia World Congress uses compostable products from:

- Greenware
- Ecotainer
- Dispozo

Collection System:

Compostables are collected in 35 gallon totes kept in the kitchen. In the employee cafeteria, they have one staff member specifically for sorting materials going to various waste streams.

Compost bins are only made available in events if the client requests it, which happens approximately 5 times a year. They keep the compost bin alongside the compost bins at every event because of the high levels of contamination. They use signs to remind guests about what to compost. These measures have been quite effective. At the Georgia Dome, composting is available all year round in the party suites and is complex. They have been collecting in back-of-house since before 2010.

Compostables are collected daily or every other day depending on how busy the event is. 313 tons of compost was collected at the GWCC and 40 tons at the Georgia Do

Challenges:

Training back-of-house staff to source separate for compostable is challenging because much of the staff had never had experience of what was compostable or why it is important to separate. The chefs were adamant and it was seamlessly integrated into the process.

Need to have as much signage as possible since it's your best bet for reminding people and getting the message across to separate for composting. Include signage everywhere; at the bins, dining table tops, loading dock area, scraping area, etc.

Educate why you're making the change and have a good message to repeat. Get buy-in from upper management by making the business or economic case that appeals to them. Competition among convention centers has helped, especially since events are increasingly asking for front of house composting which shows that it isn't just a fad.



California: University of California-SF Medical Center

Location(s): San Francisco, CA

Summary:

The University of California–San Francisco (UCSF) Medical Center is one of the first hospitals to use compostable food service ware and ensure it gets composted. They have the unique advantage of regular city–mandated pick–up of organics and a polystyrene ban to eliminate the use of common disposable food service ware. Since their staff does most of the sorting of materials, they have very low contamination in all of their discard streams. Although composting has increasingly become built into the culture of San Francisco, the staff has tremendous pride in separating for composting.

Oregon: Rose Garden Stadium (Portland Trailblazers)

Location(s): Portland, OR

Summary:

The Portland Trail Blazers are certainly blazing their own trail by adding composting to single waste stream management. In 2005, the Trail Blazers, Rose Quarter operations, Ovations Food Service, and City of Portland made a commitment to divert 100% of the venue's solid waste from the landfill. In 2005, 35% of waste generated was recovered through back of house and office recycling and it was determined that 60% could be composted if they switched to compostable food service ware. In 2010, after making changes and a switch to compostable disposables, they achieved a rate of 80% landfill diversion.

Products and Brands Composted:

StalkMarket (local to Portland) - cups and food packaging

Collection System:

The Stadium contains 300 GreenDrop recycling stations for guests, which include signs that indicate how items should be disposed. Once full, the compostable items go through a food waste compactor which was purchased from a grant given by Metro, Portland's tri-county regional government. The City of Portland provided bulk handling containers to manage the large volumes of compostables and recyclables about to be hauled.



GreenDrop Recycling Bin

no additional cost for switching to compostables since collectively, some petroleum products cost alternatives.

Compost Process:

Allied Waste processes their organic material at their composting facility.

Size of Operation:

The stadium brings in approximately two million guests and produces 1 million pounds of disposable material each year.

Dollars and Sense:

Cost savings were found throughout the supply chain. From the (landfill tipping fees, solid waste hauling) to the recycling station cleaning since guests get involved in carrying out their own waste.

but in the medical center cafeteria, they use compostable ware, such as:

er

rtment Clamshell, Bagasse Clamshells, Paper/PLA Container, PLA Cups

Molded Fiber Plates

; liners

Washington: Safeco Stadium (Seattle Mariners)

Location(s): Seattle, WA

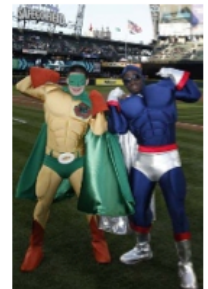
Summary:

Back in 2008, when Safeco Field recycled 12% of their waste, Scott Jenkins, the VP of Ballpark Operations for the Seattle Mariners, thought the upper limits for waste diversion for a stadium was about 50%. By auditing the waste stream, the Mariners discovered that a majority of what was being landfilled could be composted. Switching to compostable service ware virtually eliminated the need to provide landfill containers for fans. The diversion rate for 2012 is 85% and they now have their eyes on achieving a 90% diversion rate.

Products and Brands Composted:

Everything used in food operations is Cedar Grove approved compostable. This includes straws, cups, bowls, hot dog trays, food wraps, forks, spoons and knives. There are only rare exceptions to this.

Collection System:



Captain Plastic and Kid Compost

Atlanta Airport direct assistance



Annual HJIA Foodservice Ware Packaging Usage Form, Detail of All Products Used Concessionaires Conformance to Contract Provisions for Compostable Consumer-Facing Packaging

Fill out this form for each store location.

Date (mo/day/year):

Name of Master Concessionaire:
Concept/Brand:
Operator/Subtenant:
Store Location:

Contact Name:
Title:
Email:
Phone, work:
Phone, cell:

For each type of consumer-facing packaging used, provide the manufacturer item #, name of manufacturer, whether the product is compostable, and whether or not the product is labeled as compostable.

Alternatively attach the requested information to this form. Items do not need to be listed in the product category or description.

Product Category	Product Description	Manufacturer
Cold cups for beverages		
Cold cups for other applications		
Cold cup lids/domes		
Hot cups for beverages		
Hot cups for other applications		
Hot cup lids		
Straws		
Stirrers		
Plates/Platters		
Lids/domes for plates/platters		
Bows		
Food containers: hinged clamshells		
Food containers: folding cartons/boxes		
Food containers: one piece, without a lid (such as a tray)		
Food containers: two piece, including a lid		
Portion cups (with or without a lid)		
Wraps		
Bags: single portion (such as for fries, sandwiches or hotdogs)		
Bags: carryout		
Beverage carriers		
Cutlery		
Other (please list):		



Compostable Foodservice Ware Packet

Introduction

Many event venues, office buildings, malls, airports and other facilities with food court operations are beginning to take a zero waste journey. One of the first steps in the journey is back-of-the-house organics collection for minimal purchasing changes necessary.

Front-of-the-house collection of food waste and packaging is the next stage in zero waste. Significant modification to current foodservice packaging used by operators. With recent product options available to food service operators.

As a Zero Waste Zones – Atlanta Participant, Hartsfield-Jackson Atlanta International Airport Sustainable Food Court Initiative (SFCI), an Elemental Impact Task Force in partnership with the Atlanta Foodservice Association, to bring zero waste practices to the airport operations. The new concessionaires beginning in 2012 include, among others, the following provision:

"Concessionaire shall use compostable serviceware along with consumer facing packaging for food service wastes for direct transport to off-airport composting facility."

This document's intent is to provide clear, concise information:

- 1) To allow concessionaires to satisfy the contract provisions stipulated in the Request for Proposal
- 2) To ensure effective ongoing communication with product manufacturers and distributors

The SFCI Team is available to support concessionaires with education and information on a solid understanding of the compostable packaging requirements, operators are in a position to identify distributors or discover additional options in the marketplace to satisfy the Compostable Foods their foodservice packaging.

For more details, please refer to the information provided below:

- **Composting: what is it, why do it, and why it is important at the Atlanta Airport**
- **The importance of packaging in successful composting**
- **Compostable foodservice ware contract requirements**
- **Types of compostable foodservice ware products covered by contract restrictions**
- **Description of compostable foodservice product types**
- **Resources for more information**
- **Frequently Asked Questions**



Compostable Foodservice Ware Packet

FAQs

Why require foodservice ware to be compostable?

Single-use foodservice ware products such as drink cups, take-out containers, and cutlery are thrown away as trash in large volumes at Hartsfield-Jackson Atlanta International Airport (HJIA). They are not recyclable at HJIA. Compostable alternatives are now easily sourced and are no longer considered specialty items. Requiring food vendors to use compostable products will reduce overall trash removal needs and costs, enable food residuals recovery, and help avoid contamination of collection bins for compostable materials.

Food residuals commingled with compostable packaging diverts one waste stream from landfills that was previously two waste streams. No cleaning or washing of compostable products is needed for recovery. Unlike traditional recycling of plastics and paper, compostable items do not have to be free of ice, liquids, grease, and other food residues in order to be composted. They can be put straight into the collection bin with any remaining food scraps; they will decompose together at the composting facility. Customer participation is an easy one-step process. Convenient access to properly labeled bins is a critical component to ensure high customer participation levels.

What is the difference between recyclable and compostable products?

"Recyclable Products" include the reuse, reconditioning, and remanufacturing of products or parts in another product. Similarly, "recycled content" includes products and packages that contain reused, reconditioned or remanufactured materials, as well as recycled raw material. "Compostable Products" will break down, or become part of usable compost (for example, soil-conditioning material or mulch), in a safe and timely manner in a commercial composting facility. Composting turns biodegradable materials into usable compost, which is a humus-like material that enriches and returns nutrients to the soil.

Why is HJIA requiring that food vendors use third-party-approved products?

Unfortunately, there are many available products with misleading, deceptive or unsubstantiated claims of biodegradability or compostability. Buyer beware! Items with simple claims of "biodegradability" or "biobased content" do not mean they are, in fact, compostable. Because the intent of HJIA's program is to minimize landfilling, products designed to be "biodegradable" in a landfill are not acceptable. Be sure the products you buy are certified as compostable by the Biodegradable Products Institute (BPI) or accepted as compostable by Cedar Grove Composting, which field-tests the compostability of food service items in its state-of-the-art composting facility.

BPI is a third-party certifier of commercially compostable resins, films, foodservice ware and other products. It is recognized by the US Composting Council (the trade association for the composting industry) as the leading industry organization for determining product compostability in North America. BPI-certified compostable products are being used successfully in numerous restaurants as part of diversion efforts throughout the US and Canada.

BPI-certified items have passed rigorous testing at reputable labs under one of two scientifically accepted standards: ASTM 6400 for plastics or ASTM 6868 for plastic-coated paper. To pass these standards, products have to meet thresholds for three basic elements: biodegradation, disintegration, and safety (measured by ability to grow plants and limits on certain regulated heavy metals such as lead). A product that only meets one or two of the elements but not all three will fail the standard.



Some Thoughts

- Life cycle thinking – taking a “principle-based” approach to sustainable materials
 - Define what we want
 - Set priorities
 - Sustainable feedstocks
 - Green chemistry
 - Cradle to cradle
- Need to expand composting & recycling capacity
 - corporate support for infrastructure and policies
- Transitioning from fossil fuels to renewable, biobased feedstocks
 - Biobased not inherently better
 - Need criteria & standards for defining sustainable biomaterials and plastics across their life cycle
 - No GMOs in field
 - Inherently safer chems
 - Concerns with nano
 - Reuse, recycle, compost



Single use has got to go!

University of Maryland: Reusables & Compostables



Ultra Green but single-use



Kids understand that reusable is better than single-use



Washington Post, Dec. 9th, 2012.



Young Activist Club, Maryland

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