



INSTITUTE FOR
Local Self-Reliance

Current Activities and Future Plans: Sustainable Foodservice Ware & Composting

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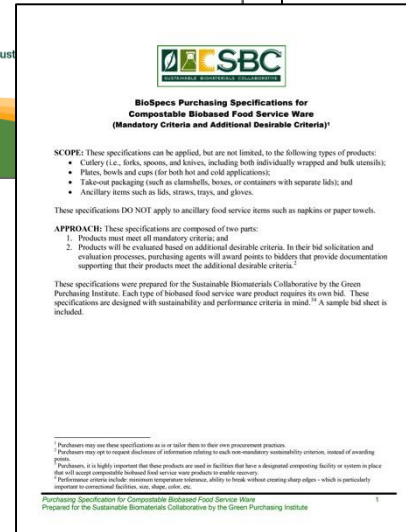
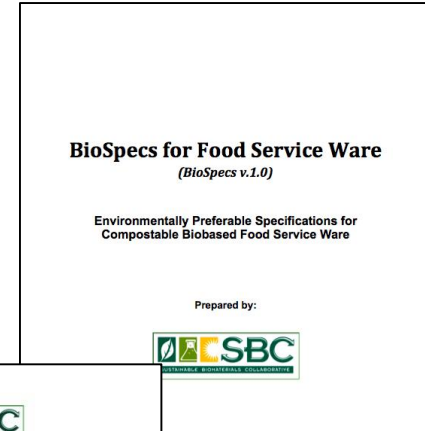
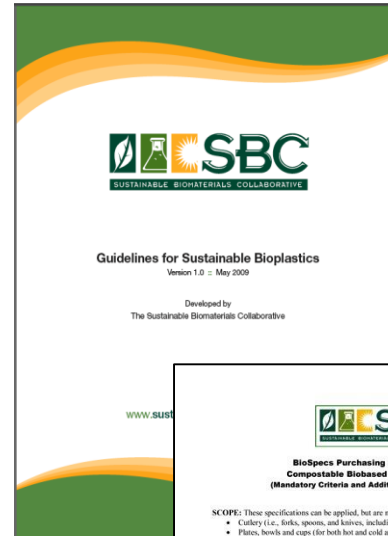
**Exploring the Value Chain of Food & Beverage Packaging
Washington, DC**

Sustainable Biomaterials Collaborative: Market-based tools for biobased products

- 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"



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

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 item 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 order.

| 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 embarking on a waste management 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 waste management. 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 packaging requirements.

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.

Kids understand that reusable is better than single-use



Washington Post, Dec. 9th, 2012.

Young Activist Club, Maryland, www.YoungActivistClub.org

Compost: Foundation of healthy soil and green infrastructure

- Stormwater management (low-impact development)
- Water conservation (the cheapest “new supply” of water)
- Sustainable landscapes
- Sustainable local/regional agriculture

Added benefit of cost-effective waste diversion

Source: David McDonald, Seattle Public Utilities & Washington Organic Recycling Council, Soils for Salmon Project.

Compost holds 20 times its weight in water



Sediment Trap



Slope Protection and Erosion Control Blanket



Vegetated Walls



Above photos courtesy: Filtrexx

Building Healthy Soils with Compost to Protect Watersheds

May 2013

By Bobby Bell and Brenda Platt



Photo: MCS Inc. www.mcsnjinc.com

Summary

Healthy soils are essential for protecting local watersheds.¹ Naturally occurring (undisturbed) soil and vegetation provide important stormwater functions: water infiltration; nutrient, sediment, and pollutant adsorption; sediment and pollutant biofiltration; water interflow storage and transmission; and pollutant decomposition. These functions are largely lost when development strips away native soil and vegetation and replaces them with minimal topsoil and sod.² Organic matter is vital to soil quality and amending soil with compost is the best way to increase the organic matter in soil, which improves soil's ability to retain water.³

By improving soil ecosystems, compost can help states meet total maximum daily load (TMDL) limits.⁴ In an effort to restore impaired water bodies throughout the country, the federal Clean Water Act requires states to develop TMDLs (i.e. the maximum amount of a pollutant that a water body can receive and still meet state water quality standards) as part of their Watershed Implementation Plans (WIPs). In 2010 the US Environmental Protection Agency established the Chesapeake TMDL, a historic and comprehensive "pollution diet" and largest TMDL ever established.⁵ Many of the region's primary waterways, such as the Anacostia and Potomac Rivers in the Washington, DC metropolitan area, have become unfishable due to elevated levels of toxic pollution.⁶ Because most of the Bay and its tidal waters are impaired due to excess nutrient pollution and sedimentation, the Chesapeake TMDL is designed to achieve significant reductions in nitrogen, phosphorous, and sediment. Specifically, the Chesapeake TMDL mandates a 25% reduction in nitrogen, a 24% reduction in phosphorous, and a 20% reduction in sediment by the year 2023. Restoring the Bay watershed to meet these targets requires effective non-point source pollution control. Runoff from agricultural, urban and suburban lands carry nutrients, sediment and other pollutants to local waterways, causing eutrophication and harming aquatic life.⁷ Integrating compost and compost-based products into the region's soils is a key way to protect the watershed, while providing a number of additional benefits such as promoting higher crop yields, reducing greenhouse gases through carbon sequestration, diverting discarded biodegradable material from the waste stream, and creating "green" jobs.

The Institute for Local Self-Reliance (ILSR) is a national research and technical assistance nonprofit organization providing innovative strategies, working models, and timely information to support environmentally sound and equitable community development.

This paper was prepared under ILSR's Composting Makes Sense Initiative with funding support from the DC Water Resources Research Institute of the University of the District of Columbia and the Town Creek Foundation.

For more information on ILSR and how to get involved in promoting composting and compost use, visit www.ilsr.org.



www.ilsr.org/paydirt



MCS Inc., www.mcsnjinc.com



installation



after

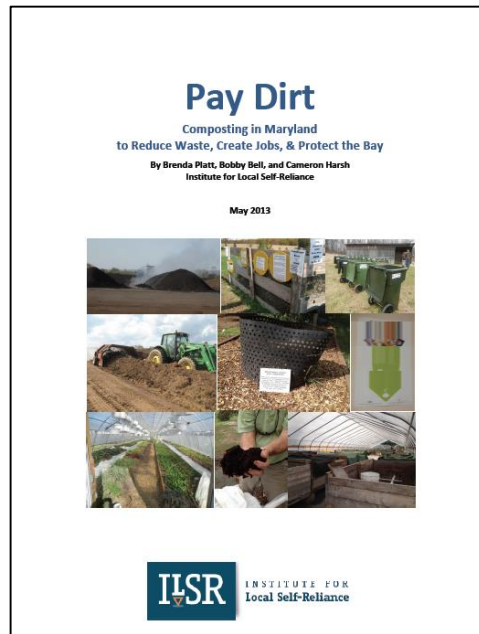
Denbow, www.denbow.com



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Composting = Local JOBS



On a per-ton basis, composting sustains 2 x more jobs than landfills and 4 x more than MD's three trash incinerators

- Organics do not ship well
- Composting is small-scale
- Jobs are local
- Compost products are used locally
- Dollars circulate within local economies
- Local = good for local economies
- Composting linked to urban food production
- Composting diversifies farm products and saves money

Job Creation: Composting vs. Disposal

| Type of Operation | Jobs/ 10,000 TPY | Jobs/\$10 million capital investment |
|--------------------------------|---------------------|---|
| Composting Facilities | 4.1 | 21.4 |
| Compost Use | 6.2 | n/a |
| Total Composting | 10.3 | |
| Disposal Facilities: | | |
| Landfilling | 2.2 | 8.4 |
| Burning (with energy recovery) | 1.2 | 1.6 |

On a per-ton basis, composting production and use sustain almost 5 times more jobs than landfilling and 9 times more than burning

\$ converted to constant 2010\$

TPY = tons per year (for composting, tons represent original material, not the amount of compost produced)

Source: Brenda Platt, et. al, *Pay Dirt: Composting in Maryland to Reduce Waste, Create Jobs & Protect the Bay*, ILSR, May 2013.

www.ilsr.org/paydirt. Based on MD-specific composting and disposal facilities.



Photo courtesy of MCS, www.ilsr.org



Composting Makes \$en\$e

- ❖ Expanding composting = supporting made-in-America industry
- ❖ 1,400 new jobs could be supported for every 1 million tons of food scraps and yard trimmings converted into compost and used locally
- ❖ These jobs could pay \$23 million to \$57 million in wages
- ❖ Small-scale community-based composting works
- ❖ Composting sustains 2x more jobs than landfilling and 4x times more than burning trash (on a per-ton basis)
- ❖ Healthy soils need organic matter like compost

*Pay Dirt:
Composting in Maryland to
Reduce Waste, Create Jobs & Protect the Bay*

LEARN MORE www.ilsr.org/paydirt



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Seattle: composting collection everywhere

McDonald's



Northgate Mall



Dick's Drive In



Flair Taco - taco truck



Subway



Starbucks Coffee



Rancho Bravo taco truck



Safeco Field



SEATTLE PUBLIC UTILITIES

Reliable water, sewer, drainage & solid waste services.

Ray Hoffman, Director

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- Commercial Customers
- Rates
- Collection Guidelines
- Compostable Items Flyer
- Food Package Requirements
- Businesses that Compost
- Food & Yard Waste FAQs
- Food Donation

[For Businesses](#) > [Solid Waste](#) > [Food & Yard](#) > [Commercial Customers](#)

Select Language

Food Service Packaging Requirements

Seattle's New Food Packaging Requirements

The City of Seattle is requiring all food service businesses to find packaging alternatives to throw-away food service containers, cups and other products in all food service businesses - restaurants, grocery stores, delis, coffee shops and institutional cafeterias.

By July 1, 2010 all food service products designed for one-time use must be replaced with one-time use products that are either compostable or recyclable.

In addition, businesses that have customer dining area disposal stations where customers discard single use packaging must collect recyclable and compostable packaging in clearly labeled bins and send it to a recycling or composting facility for processing.

When does the ban take effect?

Phase one of the ordinance applied only to expanded polystyrene (EPS, sometimes called "Styrofoam"). The foam ban took effect January 1, 2009.

Phase two of the ordinance applies to all throw-away food packaging and service ware. The ban on disposables took effect July 1, 2010.

A temporary exemption is in place for utensils, straws, small portion cups, and foil-faced, insulated wrap until July 1, 2013. Please see below for more details.

Are there any product exemptions?

Leading up to the July 1 deadline, Seattle Public Utilities worked extensively with restaurant industry stakeholders and businesses in the food service packaging industry. Through this process, which has included restaurant industry comment and in-use testing of various products, SPU has determined that there are several types of products for which compostable or recyclable alternatives meeting acceptable performance standards or recyclability do not yet exist.

Ordinance 123307, which took effect June 19, 2010, permits Seattle Public Utilities to issue director's rules for temporary waivers to the food service ware and packaging requirements set out two years ago in Ordinance 122751.



Needs to Expand Composting (and thus, options for compostable ware)


- Collection infrastructure
- Composting capacity
- Corporate support for infrastructure and policies:
 - Organics disposal bans
 - Organics diversion requirements
 - Compost procurement
 - Persistent pesticide restrictions
 - Polystyrene restrictions
 - Requirements for reusable, compostable, and recyclable foodservice ware
- Reduce contamination by encouraging use of compostable products, products that meet ASTM standards.

PROMOTING THE PRACTICE

SUPPORTIVE RULES FOR SMALL-SCALE COMPOSTING

Eleven states are surveyed for their noteworthy efforts and differing approaches to encourage more farms and other small-scale operators to compost, especially food scraps.

Brenda Platt, Rachel Ross, and Melody Poland



Supportive rules play a role in producing and utilizing compost to grow crops and restore depleted soils.

Using more farms and other small-scale operators to compost, especially food scraps, (See Table 1 for a list of the state laws and date of passage. It is still unclear which state policies are the most effective in boosting composting of food residuals. In addition, this is not a comprehensive analysis but focuses on the most salient composting practices.)

Some constraints for farm crop residue and manure when it comes to on-site farm composting. However, as the transition of manure use, so do the standards that facilities have to meet. Currently, Wisconsin allows up to 20,000 cy of on-site yard material and animal waste at any one time before the manure becomes more stringent.

COMPOSTING is inherently local. It supports local green jobs, farmers and other business. Indeed, farmers have a vital role to play in producing and utilizing compost to restore depleted soils. They also have land, a necessary factor for developing the capacity to compost. State permitting rules can facilitate on-farm and other small-scale operations, thus helping to expand and diversify the composting infrastructure.

Eleven states — Iowa, Maine, Massachusetts, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Washington, West Virginia and Wisconsin — are surveyed here for their noteworthy efforts and differing approaches in promoting the practice.

Share of Cited: Seven (64%) of total. Most at least an on-site composting operation. PA offers a native herbicide ban. A general ban is not in place.

Biocycle

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Waste to Wealth Composting
Building healthy soils and local economies

Overview Explore All (89) Articles (23) Rules (17) Resources (29)

Viewing all **Composting Rules**

Composting is an age-old process whose success has been well demonstrated in the U.S. and elsewhere. Composting facilities are far cheaper than landfills and incinerators. Adopting this approach would provide a rapid and cost-effective means to reduce methane and other greenhouse gas emissions, increase carbon storage in soils, and could have a substantial short-term impact on global warming. At the same time, compost can also restore depleted soils with nutrient-rich humus and organic matter, providing ancillary benefits that are not realized when systems of incineration and landfilling are used. Below you'll find some model composting rules adopted by communities and states.

Composting, Environment, Waste to Wealth | Local, State, Federal

Ban on Food Scraps in Landfills and Mandatory Participation Ordinances
Composting, Environment, Waste to Wealth | Local, State

Compost Procurement Policies
Composting, Environment, Waste to Wealth | Local, State

Florida – Composting Rules and Programs
Composting, Environment, Waste to Wealth

Performance-Based Composting Permit Regulations
Composting, Environment, Waste to Wealth | State

Ban on Landfill Disposal of Yard Trimmings
Composting, Environment, Waste to Wealth | State

Compost-Amended Soil Requirements
Composting, Environment, Waste to Wealth | Local, State

On-Farm Composting Rules and Permit Exemptions
Agriculture, Composting, Environment, Waste to Wealth | Local, State

Yard Waste Reduction Policies
Composting, Environment, Waste to Wealth | State

Recent Updates

- Moving From an Age of Ignorance to Scarcity to Abundance
- Freedom to Connect Starts Monday, March 4
- Community Leaders Testify Against HB 282, BIA Passes Anyway
- High Tech Companies Oppose Bill to Limit Internet Investment in Georgia
- Three Unequal Options for Local Energy Control

Most popular

- Top 10 Reasons to Support Locally Owned Businesses
- Key Studies on Big-Box Retail & Independent Business
- Survey Finds Independent Businesses Benefit from "Buy Local First" Campaigns, But Challenges Remain
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- Local Food, Drink, and More March 4th

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Why tiny plastics in compost could cause BIG problems, and what you CAN DO



Look closely...microplastics are getting into our compost


Tiny "microplastic" particles are ending up in our compost and then in our soil.

Microplastics in compost is a BIG potential problem

The plastic-coated paper products currently being collected by many composting programs produce both macro- and micro-fragments of non-biodegradable plastic which contaminate the finished compost. Once these plastics are dispersed into the environment, they have not been shown to biodegrade and are suspected of causing detrimental effects to organisms in a variety of ecosystems. We can expect these fragments to persist indefinitely and to be so widely dispersed that it will be impossible to clean them up. Compost collection programs and compost facilities must exclude plastic-coated paper products from their guidelines to prevent future harm.

a project of
eco-cycle Woods End Laboratories

Plastic-Coated Paper Products



Read more about the research from Woods End Laboratories and Eco-Cycle that shows the plastic lining on these products breaks apart when composted but does not disappear and is not taken up by micro-organisms. [Read the full report](#) or the [executive summary](#).

More from Eco-Cycle

In this section

- > [Why small pieces of plastic in our compost could cause BIG problems and what YOU can do](#)
- > [Compostable or not? Find out how to tell if your product is safe](#)
- > [Is your program keeping plastics out of our soil? Check out our map.](#)
- > [Take the pledge to protect our soils](#)
- > [More on our research on microplastics and what it means for you and our soils](#)

Reports and presentations to download

- Microplastics in compost [summary report](#)
- White paper on microplastics in compost
- Micro-plastics in Compost: [PPET1 MB](#) or [PDF](#)
- Concerns around [Deo-biodegradable Products](#)
- Compostable Food Serviceware: What to know before purchasing [PPT](#) or [PDF](#)
- How to choose [compostable foodserviceware](#)
- Available certified [compostable products for foodserviceware](#)
- Recommended [composting guidelines from Eco-Cycle](#)

Learn more about our research

[Dr. Will Brinton, Woods End](#)
[Cyndra Dietz, Eco-Cycle](#)

<http://www.ecocycle.org/specialreports/microplasticsincompost>

Parting Thoughts on Moving toward Sustainable Biobased Packaging

- Life cycle thinking – taking a “principle-based” approach to sustainable materials
 - Define what we want
 - Set priorities
 - Sustainable feedstocks
 - Green chemistry
 - Cradle to cradle
- 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!

Contact

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tplatt@ilsr.org
www.ilsr.org/paydirt

For model policies, please visit:
<http://www.ilsr.org/initiatives/composting/>
and click on “Rules”

