
Sustainable Food Packaging

September 27th, 2019

Kenneth Fraser

- EcoProducts SE Divisional Sales Manager for over 10 years .
- Manage the USA Sales and Distribution channels in six US states, Caribbean, Central America and initiatives in South America.
- Dedicated to the sustainable space in the foodservice disposables industry.
- Assisted in developing the market strategy of composter/haulers connecting to the foodservice industry which now has taken a national US footprint.
- Speaks to and bring connections to the efforts and need for clean waste streams and the elimination of single use plastics in foodservice.



Our Vision & Mission

VISION:

Eco-Products will be in the vanguard of our Zero Waste future.

MISSION:

At Eco-Products, we understand the connection between the health of the planet and the impacts of disposable packaging.

Every day we work to advance Zero Waste systems, and help our customers be better stewards of the environment.



US Composting Council



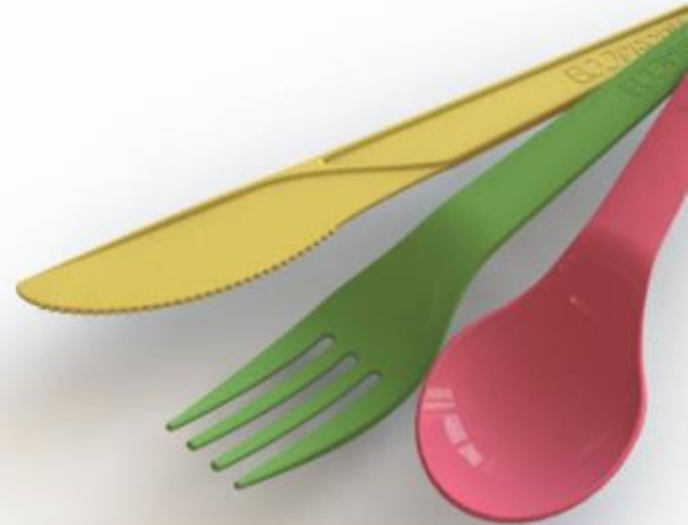
BPI



2018 Sustainability Report

- We are passionate about helping customers implement a systems solution to achieve Zero Waste.
- Every year, we publish a Sustainability Report with a transparent update on progress and a new set of goals.
- Our leadership team is represented on the boards of the US Composting Council and Eco-Cycle, and as president of the BPI.
- B Corp certification is third-party validation of our leadership in the sustainable business movement. We proudly joined companies like Patagonia, Ben & Jerrys, and Seventh Generation when we became a B Corp in 2016.

Trends affecting food packaging and sustainability



Trend #1: Interest in environmental packaging continues to increase

When choosing a restaurant

45%

Of consumers say they consider **environmentally friendly packaging** an important factor

Source: National Restaurant Association, Sustainability Consumer Survey 2017

Improving sustainability is important to

57%

Of Business & Institutional

54%

Of College & Universities

Defined as:

- Reducing food waste
- Reducing packaging waste
- Improving energy efficiency
- Improving packaging

Source: Technomic Foodservice Industry Update, 2017

Trend #2: Consumer expectations for transparency & authenticity continues to grow

Among millennials...

70%

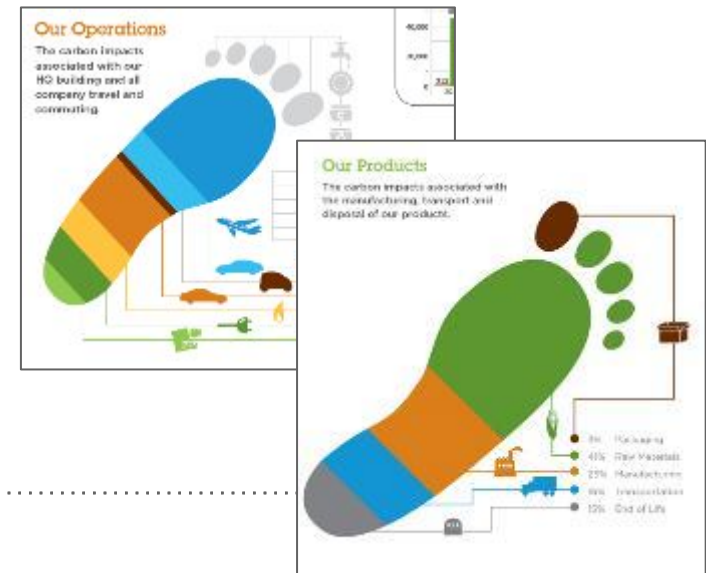
Consider a company's environmental practices when making purchasing decisions

81%

Seek information about a company's environmental or social/business practices at least occasionally

90%

Buy from a brand if they trust its environmental and social/business practices



Source: Shelton Group, Millennial Pulse, 2017

Trend #3: Headlines continue to build as major brands and cities grapple with waste

McDonald's sets goal of recycling, 100% sustainable packaging by 2025

David Carrig, USA TODAY | Published 2:49 p.m. ET Jan. 16, 2018 | Updated 10:17

Plastics Pile Up as China Refuses to Take the West's Recycling

By AP/WIDE WORLD



Waste piles in a port in the West, where recycling is being rejected by China. The ban on China's recycling has led to a surge in plastic waste in the West.

LONDON — Love it or hate it, China is now the "world's garbage dump" and paper products, Western when the ban went into effect.

Food service giant Aramark reducing single-use plastics

By JEN JENSEN

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In United States, there's a lot of food being wasted

The Washington Post
Emergency Alert System

Recorded because it has reached its soft-copy date in Leno, NC. Location: 0001/JNA/PAW

Mayor de Blasio Announces Ban On Single-use Styrofoam Products In New York City Will Be In Effect Beginning 2019

Mayor de Blasio today announced that the City's styrofoam ban will go into effect beginning in 2019. The ban will affect food service establishments, stores, and other businesses that use single-use styrofoam products. The City will also offer alternatives for use, such as expanded polystyrene (EPS) or loose fill packaging, such as packing peanuts. Over the next six months, the City will conduct outreach across the City to ensure they understand the materials to replace foam products.

PackagingNews
UK PACKAGING SECURITY
Home - News - Markets - Coffee and Paper Cups
By Wagon Quade | 20 July 2018
McDonald's partners with Starbucks to invest in research for recyclable cup
McDonald's has joined Starbucks as a founding member of a group attempting to commercialize a recyclable and compostable cup globally.

Your Recycling Gets Recycled, Right? Maybe, or Maybe Not

Plastics and papers from dozens of American cities and towns after China stopped recycling most "foreign garbage."

By Lisa Aback-Ripka
May 29, 2018

Oregon is serious about recycling. Its residents are accustomed to dutifully separating milk cartons, yogurt containers, cereal boxes and kombucha bottles from their trash to divert them from the landfill. But this year, because of a far-reaching rule change in China, some of the recyclables are ending up in the local dump anyway.

In recent months, in fact, thousands of tons of material left curbside for recycling in dozens of American cities and towns — including several in Oregon — have gone to landfills.

In the past, the municipalities would have shipped much of their used paper, plastics and other scrap materials to China for processing. But as part of a broad anti-pollution campaign, China announced last summer that it no longer wanted to import "foreign garbage." Since Jan. 1 it has banned imports of various types of plastic and paper, and tightened standards for materials it does accept.

Waste managers already send their recyclable materials to be processed



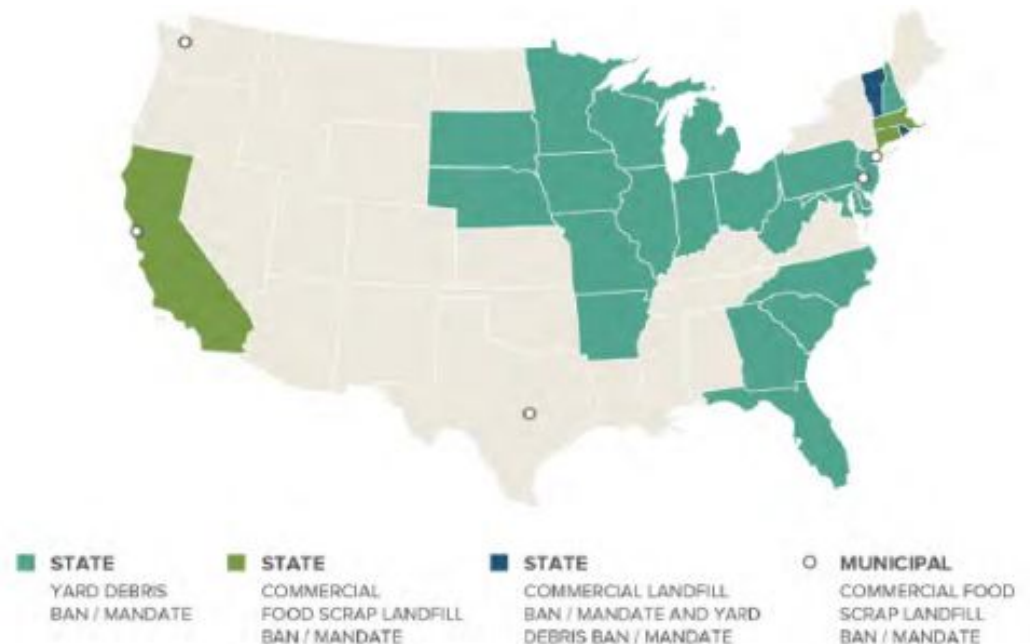
Trend #4: Legislation around food waste is expanding rapidly



Municipalities that require front-of-house recycling and/or composting of at least some foodservice packaging

- Arlington, VA
- Minneapolis, MN
- New York City, NY
- San Fran, CA
- Seattle, WA
- St. Louis Park, MN
- Washington, DC

MANDATORY ORGANICS DIVERSION LAWS



The convergence of these trends is leading to increasing interest in Zero Waste

1. Inputs

- It all starts with procurement
- Minimize the amount of materials that need to be dealt with
- Consider what goes in what bin

2. Operations

- How to make waste diversion easy for consumers:
 - Food scraps + packaging = compostable
 - Bottles + cans = recyclable
 - Misc = landfill
- Co-locate composting + recycling + landfill bins
- Bin signs should depict actual products being used

3. Outputs

- Partner with the composter to review packaging
- Post-event sort may be required to manage contamination
- Janitorial staff are often excited to be part of sustainability efforts



Waste Diversion 101

Waste diversion means minimizing what gets sent to landfill

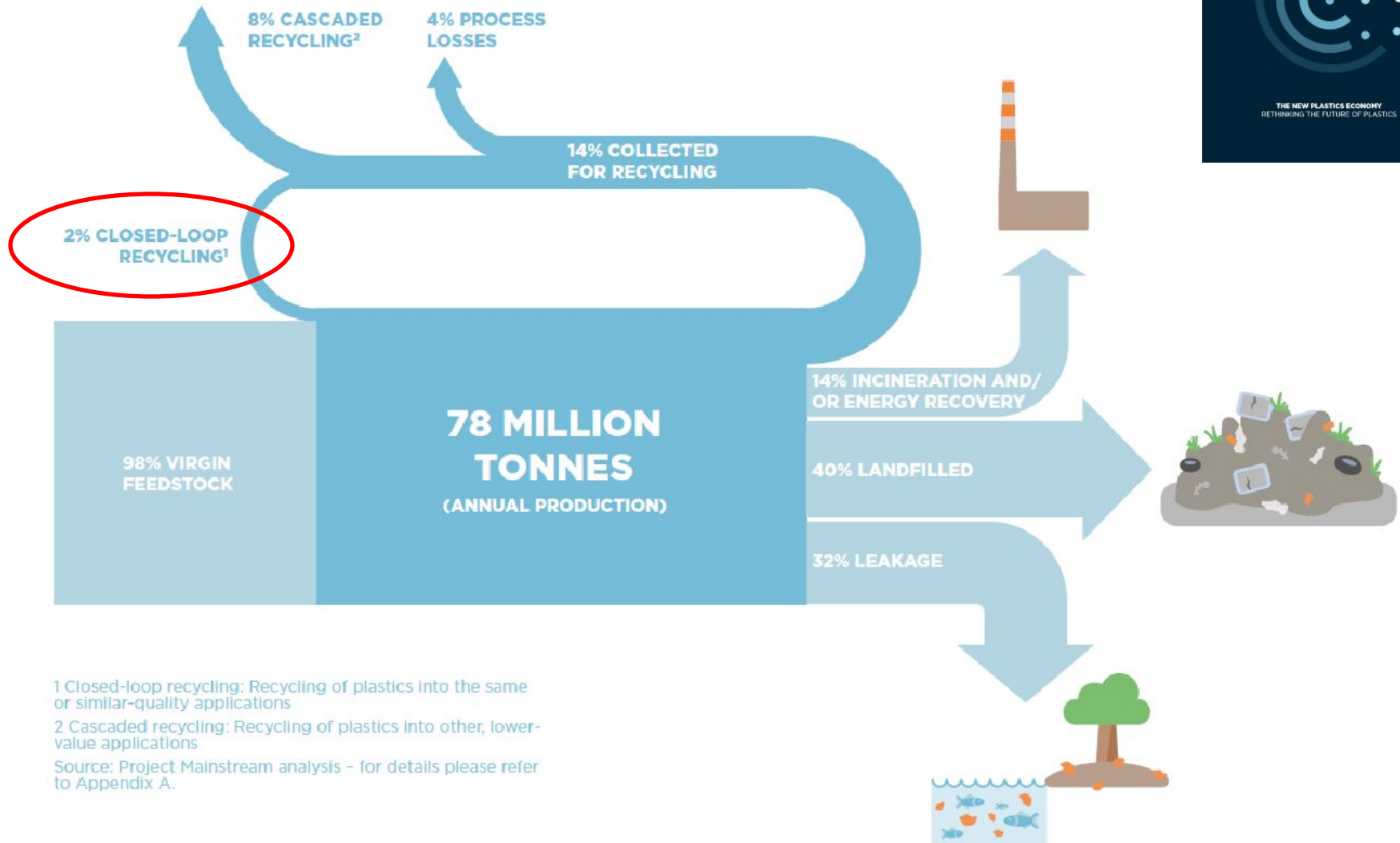
Recycling and Composting are the two alternatives to landfill

Fact:
*Recyclers don't want food.
Composters do.*

Recycling and Composting



Unfortunately very little plastic packaging actually gets recycled



Recycling foodservice packaging is rare and challenging

- Very little foodservice packaging gets recycled. Reasons include:
 - Concerns about food contamination
 - Lack of buyers looking to reprocess this material
- Chinese policy has fundamentally threatened recycling as we know it.
 - In 2017, China's Nation Sword policy effectively banned the import of post-consumer mixed plastics and mixed paper.
 - The largest exporters of recyclables – the U.S., Japan, and Germany – have decreased their materials exported for recycling. Where did it go??
- Recyclers are stockpiling materials, looking for buyers.
- US municipalities are issuing exemptions that allow recyclers to landfill materials.



What is Composting?

- **Process:** actively managed decomposition of organic materials
- **Goal:** produce compost, a valuable soil amendment
- Carbon rich materials + nitrogen rich materials = COMPOST
 - Commercial composters monitor moisture, oxygen, temperature and other factors to ensure effective break-down of materials



*CHECK OUT OUR SWEET VIDEO ON
HOW COMPOSTING WORKS!*



https://www.youtube.com/watch?v=s_27IJ3NQ04&t=3s

How industrial composting works

https://www.youtube.com/watch?v=s_27IJ3NQO4&t=3s to
be subtitled

Types of Composting



- Onsite Composting: Backyard and Community-scale
- Large-scale Commercial Composting
 - Windrow
 - Aerated static pile
 - Gore/covered
 - In vessel
- Anaerobic Digestion Facilities
 - Not composting but another method to process organics



***NOTE: FOODSERVICE PACKAGING
REQUIRES COMMERCIAL COMPOSTING***



Industrial compostable products

- BPI certified / ASTM compliant
 - Disintegrate in 12 weeks
 - Biodegrade in 180 days
 - No toxic residue that would harm plants

El Corazon Compost Facility in Oceanside, California

- Photo on left shows products composted in aerated static piles
- Photo on right shows the results – six weeks later!



Local Composting Cycle

Info to be added

Understanding Compostable and Recycled products

Compostable



INGEO™
BIOPLASTIC



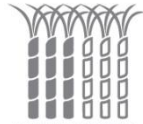
PLANT STARCH



WHEAT STRAW



SUGARCANE



SUGARCANE &
BAMBOO BLEND

What's cool:

- Made from renewable plant materials that can be grown again and again
- Not made from oil like traditional plastics
- BPI certified compostable products can be returned to the soil to help plants grow

What's not so cool:

- Compostable in commercial facilities only, which may not exist in your area.
- Not suitable for backyard composting.

Recycled



POST-CONSUMER
RECYCLED FIBER
(PCF)



POST-CONSUMER
RECYCLED
POLYSTYRENE (RPS)



POST-CONSUMER
RECYCLED PLASTIC
(RPET)

What's cool:

- Made from post-consumer recycled materials that have been used, recycled, and repurposed, meaning fewer virgin resources are required and less landfill waste is created
- Making new products from recycled materials helps drive recycling markets and infrastructure

What's not so cool:

- Not recyclable in a majority of communities.

Important Certifications and Approvals

Certifications



Approvals



PLA

- What is it?
 - Polylactic acid
 - Made from starchy plants like corn
- Why do we use it?
 - Looks and feels like traditional plastic, but is 100% renewable and compostable



Sugarcane (a.k.a. Bagasse)

- What is it?
 - Fiber reclaimed from sugarcane stalks after the cane juice is extracted
- Why do we use it?
 - Performs like sturdy paper
 - 100% renewable and compostable
 - Rapidly renewable – sugarcane grows very quickly



Plant Starch

- What is it?
 - Mix of 70% plant materials like corn and 30% polypropylene (added for strength and heat tolerance)
- Why do we use it?
 - 70% renewable (but not compostable)
 - Good option for customers who care about renewable resources but don't have access to composting





RENEWABLE
RESOURCES

Sugarcane/Bamboo Blend

- What is it?
 - Fiber from sugarcane stalks reclaimed after the cane juice is extracted plus bamboo fiber
- Why do we use it?
 - Performs like sturdy paper
 - 100% renewable and compostable
 - Rapidly renewable – sugarcane and bamboo grow very quickly



Post-Consumer Recycled PET (RPET)



- What is it?
 - PET (or Polyethylene terephthalate) plastic is one of the most common plastics in the world – used in pop and water bottles (resin code #1)
- Why do we use it?
 - Using recycled plastic saves virgin resources and diverts waste headed to the landfill by giving it a second life



Post-Consumer Recycled Fiber (PCF)



- What is it?
 - Recycled paper
- Why do we use it?
 - Using recycled paper saves virgin resources and diverts waste headed to the landfill by giving it a second life



POST-CONSUMER
RECYCLED FIBER
(PCF)



Post-Consumer Recycled Polystyrene (RPS)



- What is it?
 - Recycled polystyrene (resin code #6)
- Why do we use it?
 - Using recycled plastic saves virgin resources and diverts waste headed to the landfill by giving it a second life





Green is all we do.™

Email: info@greenbluecorp.com