

Compostable Products and Packaging in North America

Mass DEP
December 5, 2018



® **BIODEGRADABLE
PRODUCTS
INSTITUTE**

North America's Leading Certifier of Compostable Products and Packaging

Intro – Connecting the Dots

Packaging can reduce food waste by extending the life of food, but conventional packaging is a barrier to composting.

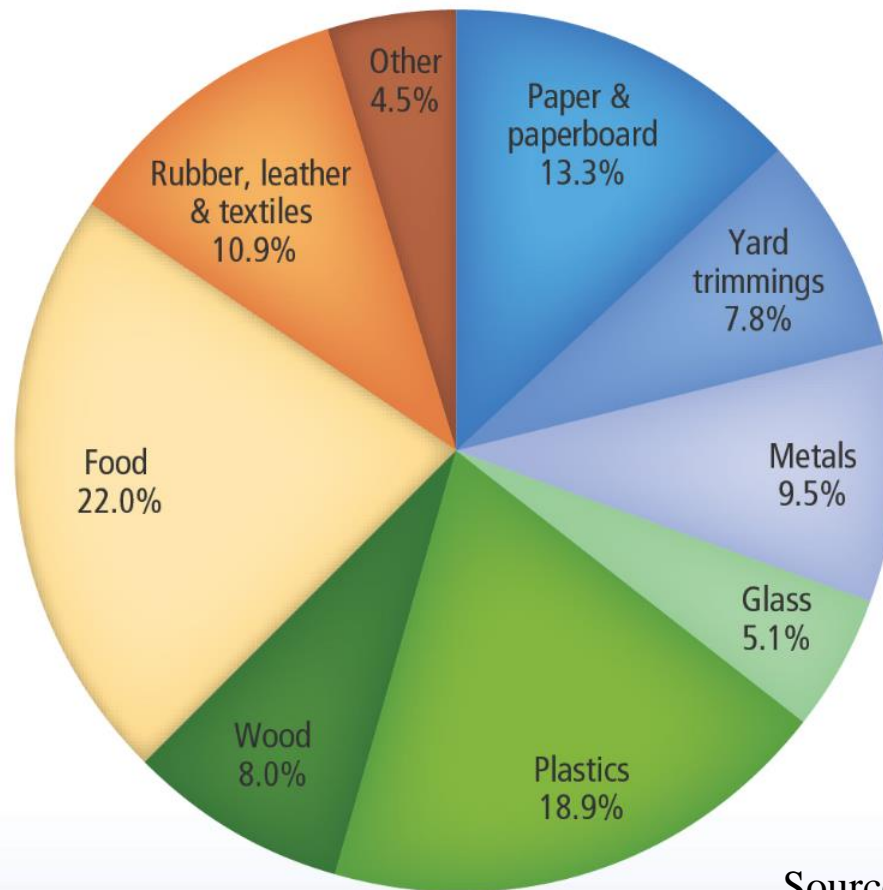
More than half of what goes to landfill in the US is organic waste (food, yard trimmings, paper, wood). Add plastic, and it's **70%**.

Comprehensive approach needed to address food waste and packaging in tandem.



The Problem – USA View

Figure 8. Total MSW Landfilled (by material), 2015
138 Million Tons



>50% is organic waste
70% when adding plastic

Source: US EPA



The Problem – USA View

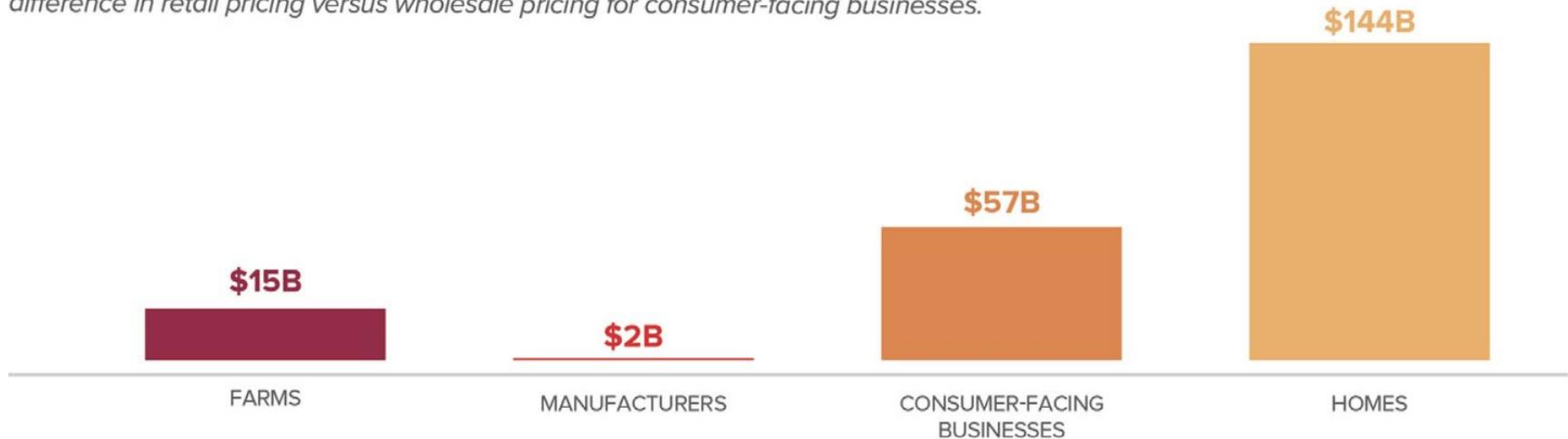
52.4 million tons of food sent to landfill annually, plus **10.1 millions tons** never harvested.

The U.S. spends **\$218 billion** a year growing, processing, and transporting food that is never eaten.

The Problem – USA View

VALUE OF WASTE — \$218 BILLION

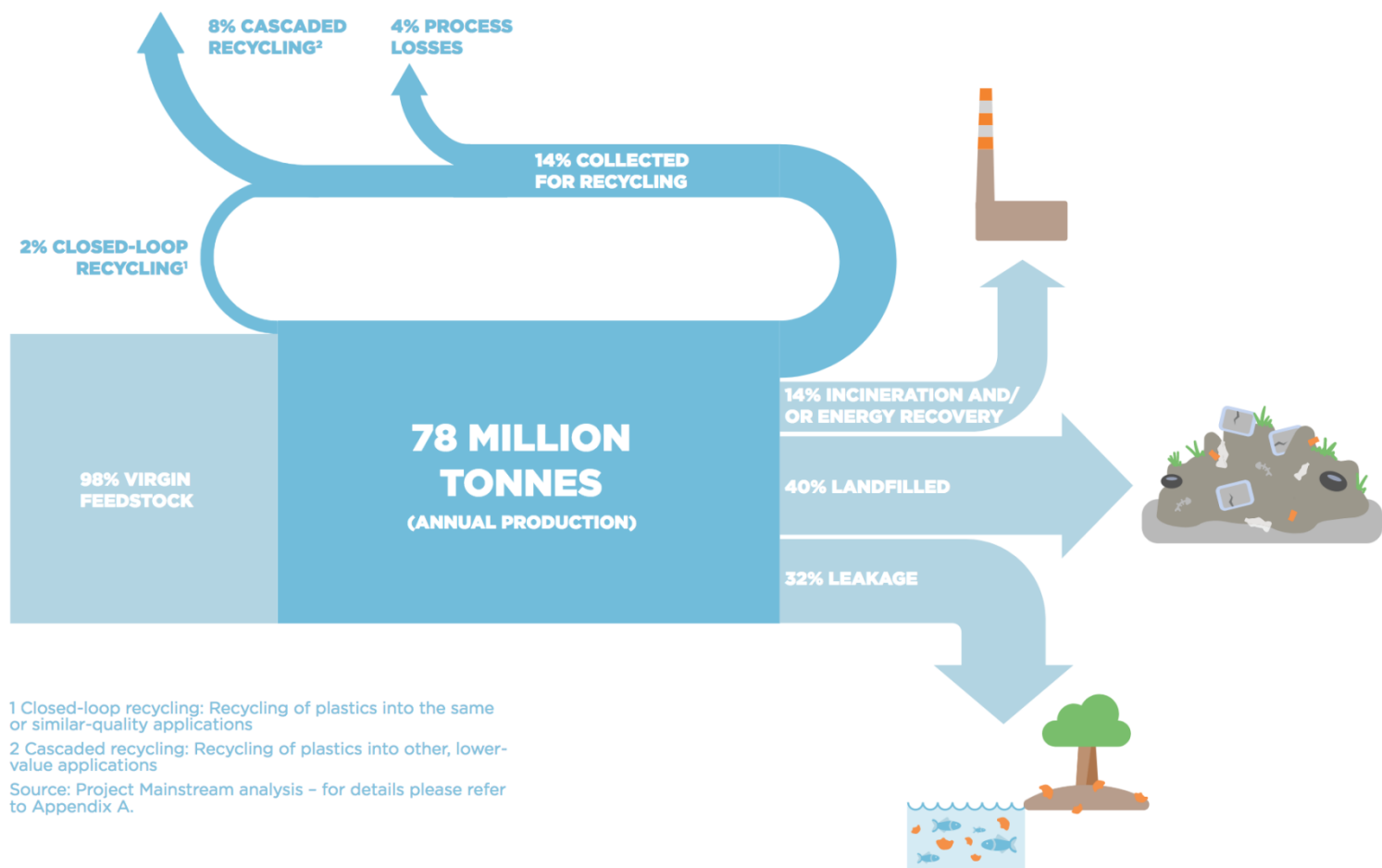
The financial cost of food waste ends up costing consumers the most due to the difference in retail pricing versus wholesale pricing for consumer-facing businesses.



BPI

Source: ReFED

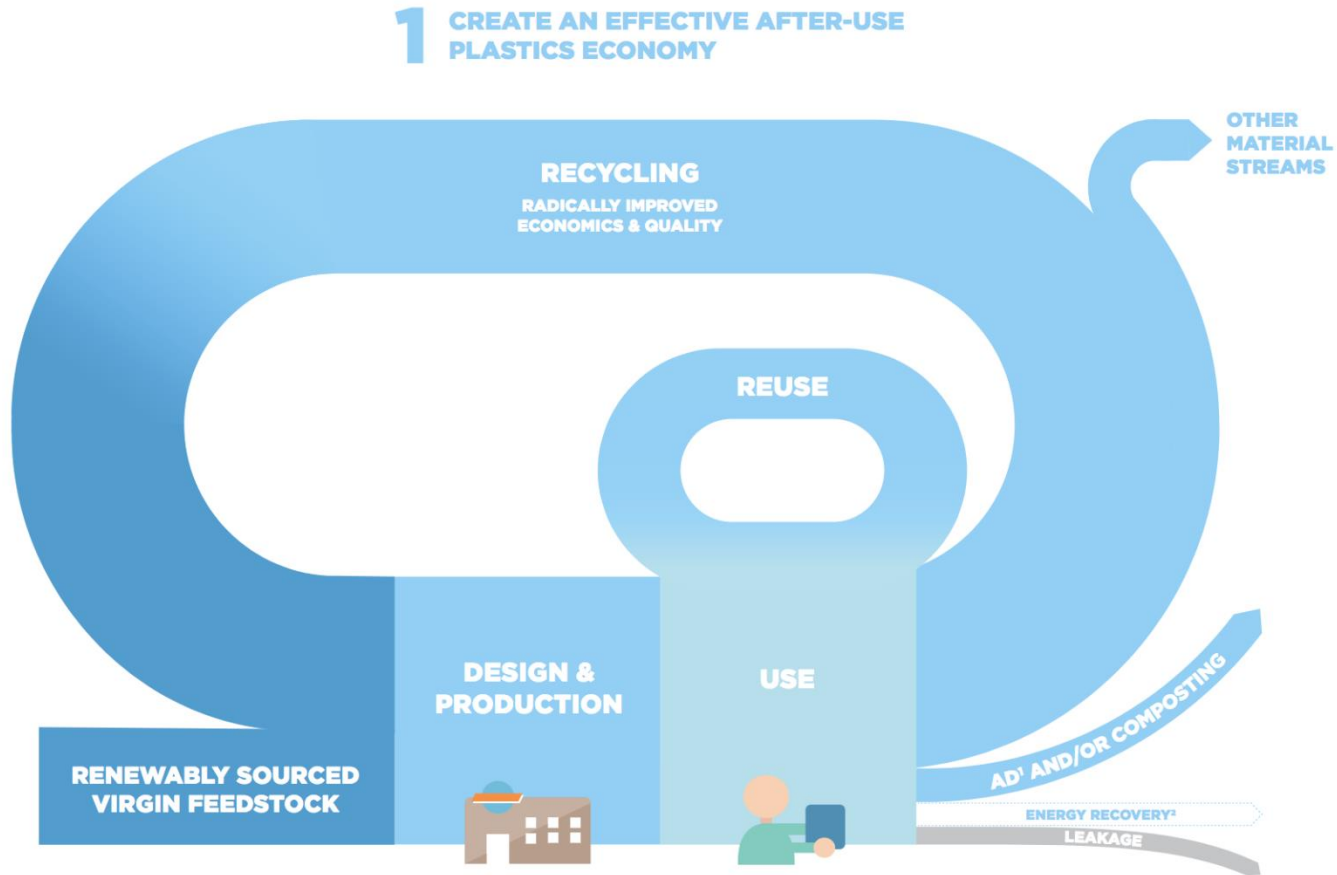
The Problem – Plastics



Source: Ellen MacArthur Foundation



Solution: Redesign for Reuse and Recovery



3 DECOUPLE PLASTICS FROM FOSSIL FEEDSTOCKS

1 Anaerobic digestion

2 The role of, and boundary conditions for, energy recovery in the New Plastics Economy need to be further investigated

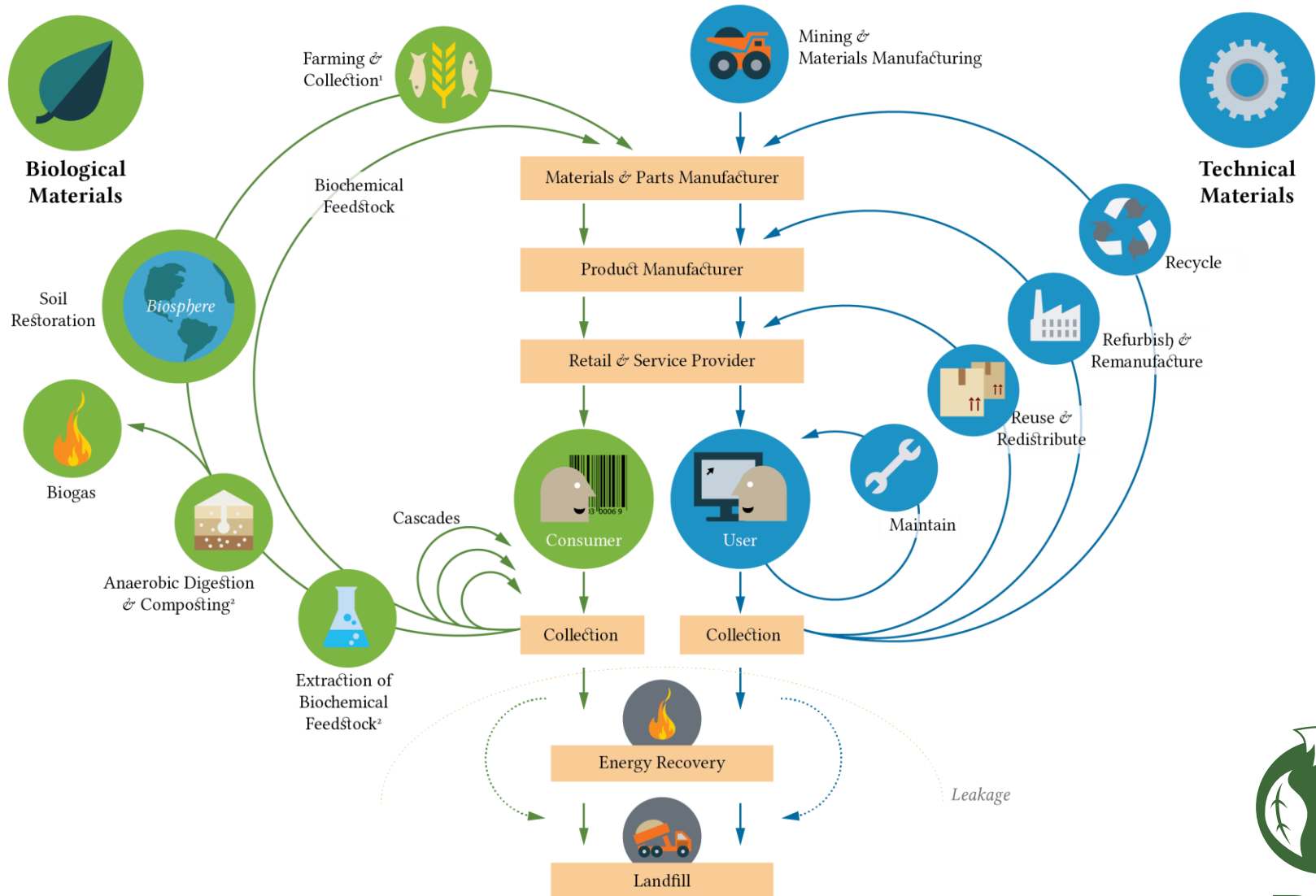
Source: Project Mainstream analysis.

2 DRASTICALLY REDUCE THE LEAKAGE OF PLASTICS INTO NATURAL SYSTEMS & OTHER NEGATIVE EXTERNALITIES



BPI

Bioeconomy



Source: Ellen MacArthur Foundation

BPI's Goal

Scalable diversion of organic waste to composting, by verifying that products and packaging will successfully break down in professionally managed composting facilities, without harming the quality of that compost.



The BPI Compostable Label

Qualification: Certification seal from BPI

Clear claim: Compostable in a specific set of conditions, per ASTM standards.

Disclaimer: A large percentage of the population does not have access to curbside composting programs.

Disclaimer: Reinforcing that it was tested for industrial composting conditions, not home composting, which has lower temperatures.

Each company has a unique ID number where you can look up certification status (products.bpiworld.org)



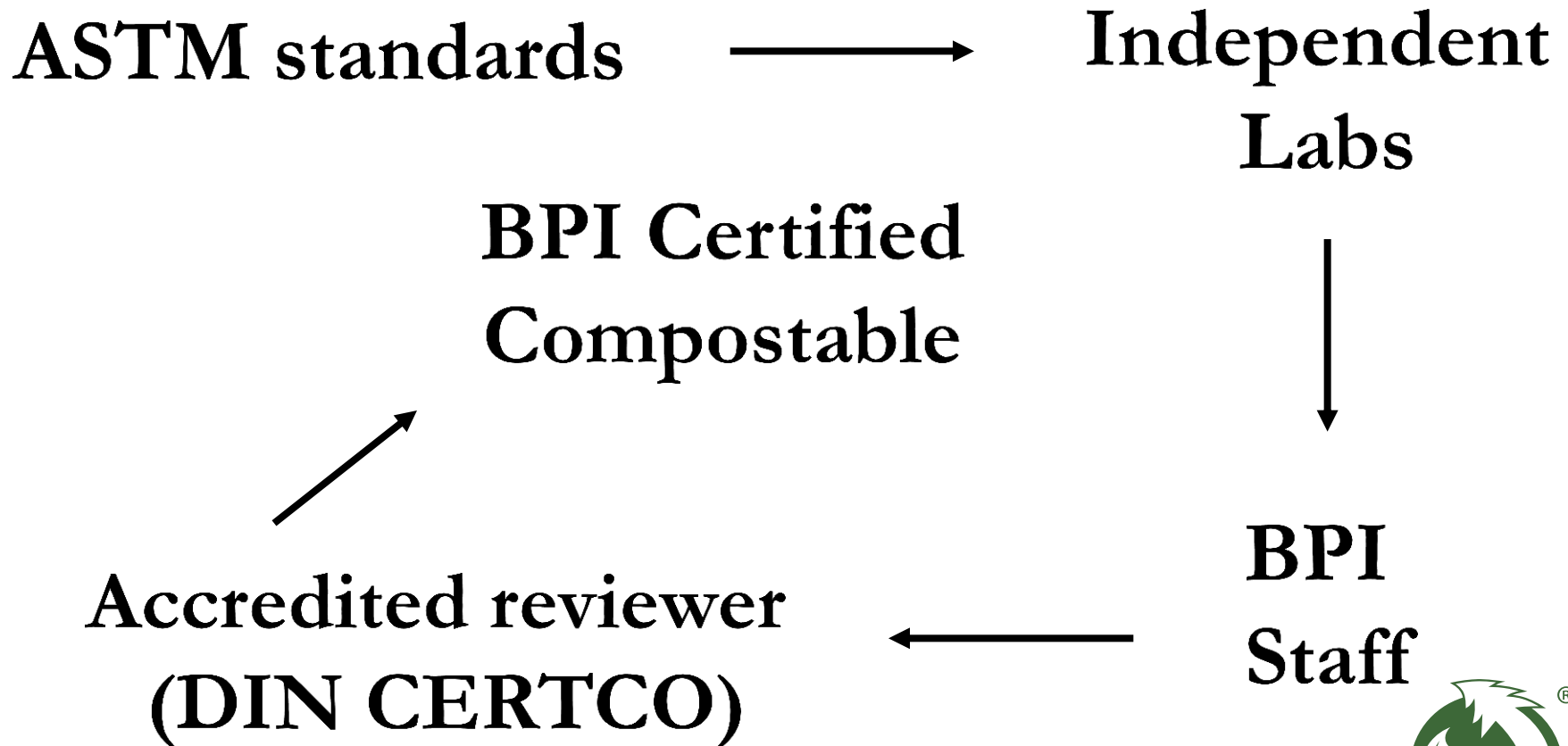
ASTM Specifications

ASTM standard specifications D6400 and D6868 provide pass/fail criteria for compostability, with multiple tests and criteria.

1. **Biodegradation** — Conversion of organic carbon in into CO², demonstrating it's food for microorganisms
2. **Disintegration** — Physical and visual breakdown of the finished product.
3. **No adverse impacts** on ability of compost to support plant growth — Heavy metals limited to 50% of those prescribed for composts in US and Canada; germination rate and plant biomass for 2 different plant species.



Third Party Certification Verification



Verify if a Product is Certified



8961 PRODUCTS LISTED
AS OF SUNDAY, OCTOBER 21, 2018

CATEGORIES: AGRICULTURE BAGS PACKAGING CONSUMER PRODUCTS FOODSERVICE RESINS NO LONGER VALID

ABOUT THE BPI BPI HOMEPAGE

 SEARCH FOR CERTIFIED COMPOSTABLE PRODUCTS

COMPANY OR PRODUCT NAME, SKU, KEY WORD

Any

SEARCH

SHOW RESULTS BY ☐ PRODUCT ☒ COMPANY

This database has an active keyword search. If you are not finding what you are looking for try searching without using a category.

FEATURED PRODUCTS CATEGORIES



HOT CUPS



CUTLERY



YARD
WASTE BAGS



COLD CUPS



FOOD
WASTE BAGS



New BPI Website



[Home](#) | [About BPI](#) | [Composting](#) | [Certified Compostable Products](#) | [Get Certified](#) | [News](#) | [Contact Us](#)

Earning the Logo

BPI is North America's leading certifier of compostable products and packaging. Our certification program ensures that products and packaging displaying the BPI logo have been independently tested and verified according to scientifically based standards. We promote best practices for the diversion and recovery of compostable materials through municipal and commercial composting.



SEARCH FOR CERTIFIED COMPOSTABLE PRODUCTS

SHOW RESULTS BY ☐ PRODUCT ☒ COMPANY



BPI & DIN CERTCO Partnership

DIN CERTCO has been hired for the administration of technical reviews under the BPI certification program, effective December 1, 2017. This will not change the appearance of the BPI certification. DIN CERTCO brings more than 2 decades of experience administering compostability certification to the partnership with BPI.



Approved Laboratories

As part of the third-party certification, BPI utilizes independent laboratories. These labs must either be accredited in the scope of ASTM D6400 and ASTM D6868, or have demonstrated compliance, ensuring they are capable of performing the tests.



Benefits of Membership

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. BPI advocates for compostable products as tools for scalable diversion of organic waste to composting.

Is Compostable the Right Choice?

Not everything that is technically compostable (ie, meets the ASTM specs) is eligible for BPI's certification – WHY?

- ❖ If only part of the item is compostable, would need to be disassembled, consideration is needed for appropriate labeling, and likelihood that a consumer will actually do the sorting
- ❖ If the item is a redesign of something readily recyclable, consumers might still place it in the recycling bin (i.e., it's not getting composted, and recyclers may worry about contamination)
- ❖ If the item isn't associated with desirable feedstocks like food scraps and yard trimmings, composters might not want it, and municipalities may suggest that consumers place it in the trash

<https://bpiworld.org/Planning-Guide>



New Restriction: Fluorinated Chemicals

Increasing scrutiny of fluorinated chemicals used for food service, apparel, firefighting, cookware, etc.

- Environmental persistence, human health
- Linked to composting with trials showing bioavailability and concentration in leaves and fruits of plants
- Strict groundwater regulations starting to impact composters

Starting in 2019 BPI will require the 100 ppm total fluorine requirement from EN 13432, followed by statement of no intentionally added fluorinated chemicals.

San Francisco's new foodservice ordinance requires BPI certification



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