

Compostables in Compost

Where Do We Go From Here?



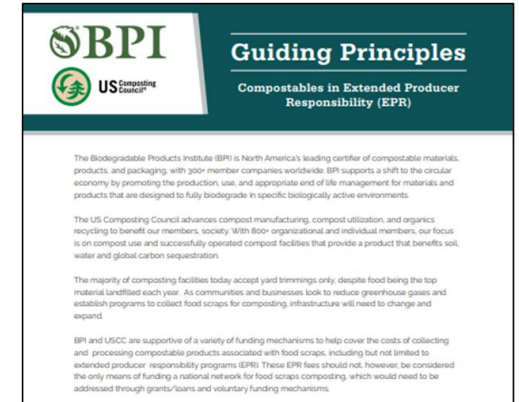
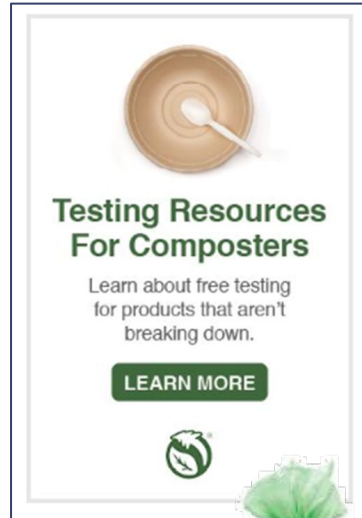
Alex Trulove, Biodegradable Products Institute
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Summit for Recycling - Grand Junction, Colorado - June 2nd-4th, 2025

The Purpose and Promise of Compostable Products

Why (Certified) Compostables?

1. Facilitate the diversion of more food and yard waste – less landfill methane, more soil amendment!
2. Reduce contamination by replacing non-compostable contaminants, ensure breakdown in well-managed compost piles to avoid persistent chemicals, microplastics.
3. Financially support compost collection and processing (EPR, BPI microgrants)



Colorado As A Leader

Colorado remains the first state to have passed EPR (2022) and comprehensive labeling legislation (2023)

Support for processing infrastructure? >>> \$ Secured via EPR, more is needed, particularly for collection & haulers

Contaminants in compost streams? >>> On-product labeling requirements targets bad actors, EPR provides \$ for audits



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Understanding Colorado's SB23-253: Standards for Products Represented as Compostable

AKA “The Compostables Labeling Act” or “CLA”

Mellik Gorton, CDPHE



COLORADO
Department of Public
Health & Environment

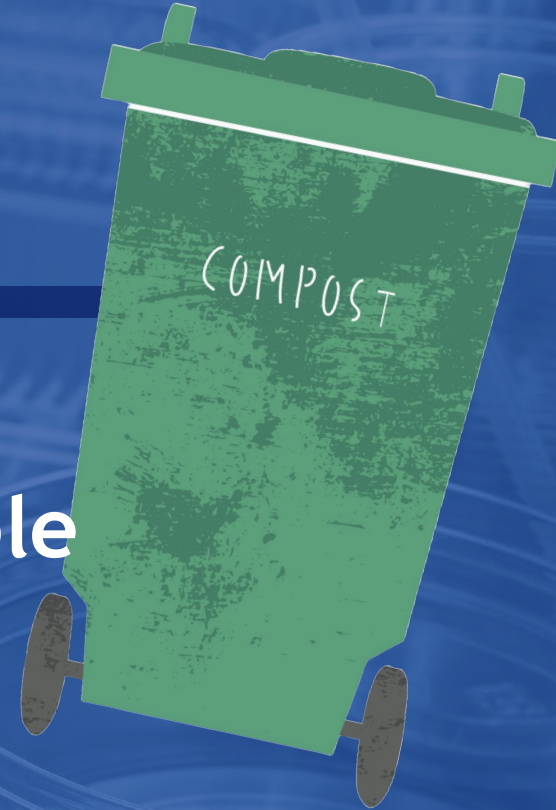
Overview:

- CLA's what's and why's
- Scope
- How it will impact business and other entities
- Labeling requirements
- Labeling prohibitions
- Extended producer responsibility & compostables



The CLA creates:

- Labeling requirements compostable products
- Prohibitions for non-compostable products



Why the CLA?



Why the CLA?

Falsely marketed products as compostable:

- Create confusion
- Cost burden to consumers
- Contaminates compost streams & environment
- Increase cost and operational challenges for compost manufacturers
- Reduce value of finished compost or makes unmarketable



Food Service Products

What are they?

- Containers
- Plates
- Bowls
- Cups
- Lids
- Beverage containers
- Meat trays
- Deli rounds
- Utensils
- Sachets
- Condiment packaging
- Clamshells
- Bowls
- Other hinged or lidded containers
- Wraps
- Portion cups



Plastic Product Defined

A product made of plastic whether alone or in combination with another material, including paperboard.

1. Made of petrochemical or plant-based plastics
2. Package or packaging component
3. A film product, and
4. A food service product that is a plastic product



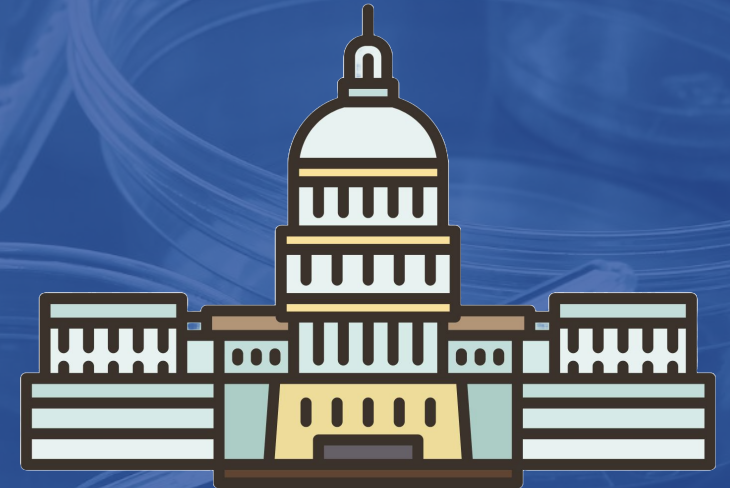
Wood is Exempt

The requirements do not apply to a product comprised entirely of untreated wood.



CDPHE's Role

- Conduct education & outreach activities about the requirements/prohibitions.
- Review complaints sent via [complaint form](#)
- Forward legitimate complaints to Attorney General's office.



Complaints and follow ups

- 20 total complaints
- 5 Referred to AGOs
- 10 not referred based on our determination
- 5 TBD



How will this impact you?

- Responsibility falls to producers
- Retailers/Business
 - Changing or removing products from shelves
- Government
 - Procurement policies
- Public:
 - Submitting complaints





Requirements for Compostable Products

(What you should look for)



What to look for - Compostable Products

1. A certification logo
2. The word “compostable”
3. Green symbols and/or tinting
4. No chasing arrow recycling symbol

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CUPS AND LIDS



DISHES AND CLAMSHELLS



Small Product

Definition: has a width of one-half inch or less of printable surface space
E.g. straws, utensils

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Small products must comply to 1 of the 3 requirements:

- Certification logo
- The word “compostable”
- Green





Products to avoid or report



Products to avoid or report:

- Tinting, color schemes, labeling, images or words that are required for compostable products



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- Or use the words or any other similar form of these words:
 - Natural
 - Biodegradable
 - Degradable
 - Decompostable
 - Oxo-degradable
 - Bioassimiable
 - Omnidegradable

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OR

supers into believing that the product is

and these words



Examples of Compliant Compostable Product Labeling

Under SB23-253 Standards for Products Represented as Compostable

Food service and plastic products:



Look for **all four**:

1. A certification logo.
2. The word "compostable" printed or embossed.
3. Green symbols and/or tinting.
4. **No chasing arrow recycling symbol.**

CUPS AND LIDS



DISHES AND CLAMSHELLS



LINERS/BAGS



Small products:

Look for **one of three**:

- A certification logo.
- The word "compostable" printed.
- All green coloring, striping, or symbols.



STRAWS



CUTLERY



Visit cdphe.colorado.gov/certified-compostable for more information!

Products that consist of 100% untreated wood, including fiber based substrates, are exempt from these requirements.

Extended Producer Responsibility (EPR)

- Compostables included in EPR
- Intent:
 1. Improve processing of compostable covered materials
 2. reduce contamination
- CAA is not required to provide ongoing reimbursement to compost facilities
- CAA's program plan proposal is not finalized
 - Fund improvements through service agreements and financial payments
 - CAA will also work with local orgs on education



Key Takeaways:

- Compliant certified compostable products are:
 - Green, say “Compostable”, include a certification logo
- Submit complaints
- Review resources on the webpages

[CLA webpage](#)

[EPR webpage](#)



COLORADO
Department of Public
Health & Environment

COMPOSTABLES IN COMPOST

JUNE 4, 2025



ECO
PRODUCTS®
A NOVOLEX BRAND



Green is all we do™

We make products with renewable, post-consumer recycled, and reusable materials, and care deeply about what happens to them after use.

This singular focus makes it possible for us to lead in ways that are hard to follow.

Certified



Corporation

This company meets the highest standards of social and environmental impact



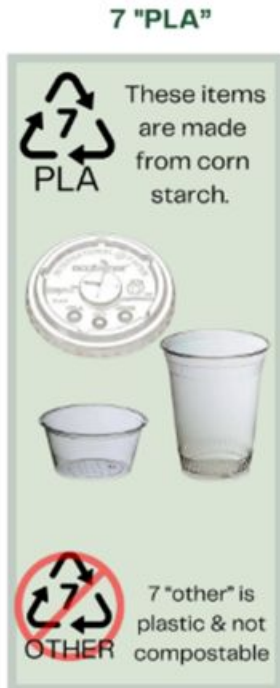
Three Takeaways

1. Compostable products can help increase the diversion of organics from landfills
2. Contamination from non-compostable products is the biggest challenge facing organics diversion systems that include certified compostable products
3. Consistent on-item labeling is an essential tool in the effort to educate the value chain on what is compostable and what is not



Contamination Makes it Complicated!

Contamination from non compostable products is a problem for all composters no matter what they accept



So why do some composters choose to accept certified compostable packaging?

- Helps capture food scraps that would otherwise be difficult or impossible to keep out of landfills
- Promotes circularity in their communities
- Creates access to customers that need a solution for source separated organics diversion
- Enables composters to participate in EPR funding depending on the state approach



**So, do compostable
products break down?**

BREAKING IT DOWN

**THE REALITIES OF
COMPOSTABLE PACKAGING
DISINTEGRATION IN
COMPOSTING SYSTEMS**



TOP 10 TAKEAWAYS

- 1 Our study evaluated the disintegration of over 23,000 units of compostable packaging at ten commercial composting facilities across the U.S.

Data shows certified food-contact compostable packaging successfully disintegrates at commercial composting facilities that meet reasonable operating parameters* (e.g., moisture, temperature, oxygen).

- 2 On average, compostable plastic packaging and products broke down 98% by surface area when composted.**

This exceeds the 90% minimum threshold for disintegration established by compost industry groups.***

- 3 Compostable plastic broke down successfully regardless of composting method or compost process time.

We tested compostable plastic products across windrow, aerated static pile (ASP), covered ASP, and in-vessel composting technologies, which had varying processing timeframes.

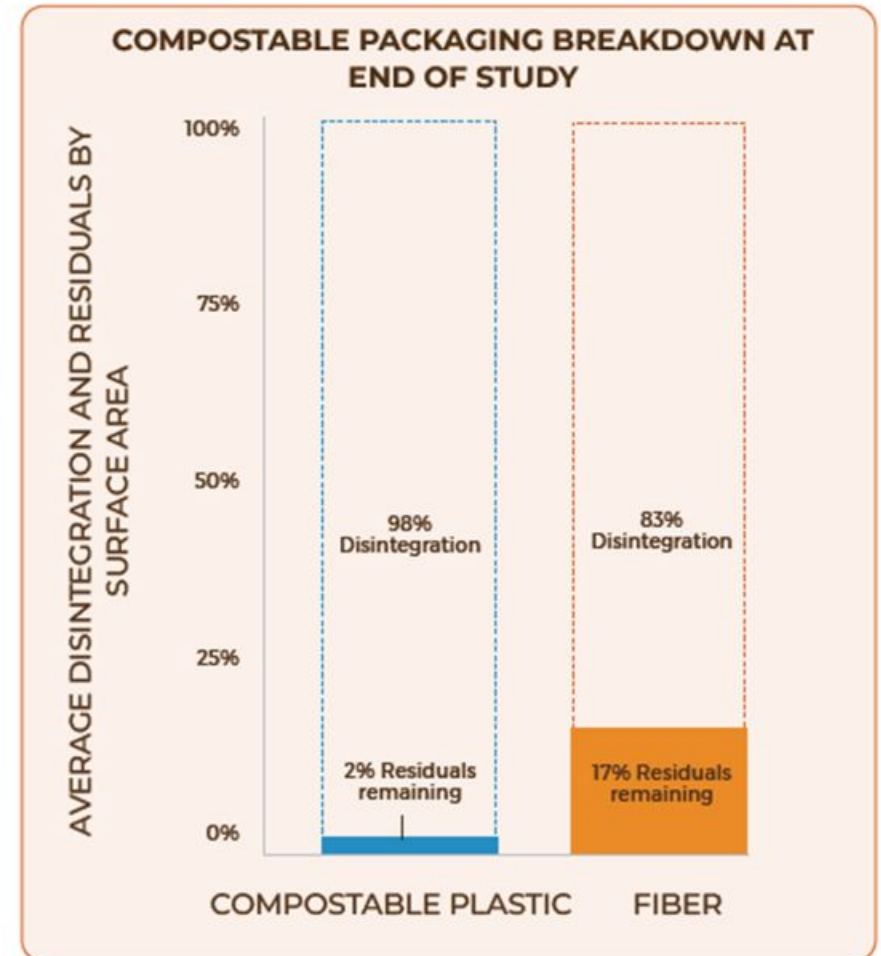
- 4 On average, compostable fiber packaging and products broke down 83% by surface area when composted.**

This exceeds the 80% minimum threshold for disintegration established by compost industry groups.***

- 5 Agitation helps fiber break down in compost piles.

Facilities that utilize mechanical turning or agitation (e.g., windrow or in-vessel) broke down fiber materials more effectively than facilities that did not incorporate agitation.

EXECUTIVE SUMMARY FIGURE 1. AVERAGE RESIDUALS AND DISINTEGRATION FOR FIBER AND COMPOSTABLE PLASTIC PACKAGING AT ENDPOINT



* Reasonable operating conditions defined in Table 2.1 of *The Composting Handbook*.

** Data corresponds to mesh bag results only.

*** Compost Manufacturing Alliance (CMA) is a composting industry group that uses in-field disintegration thresholds, which are specific to each compostable material (i.e., compostable plastic, fiber)

TOP 10 TAKEAWAYS (CONTINUED)

6 Consistent moisture levels above 50% support the disintegration of fiber packaging and products.

Facilities that had weekly moisture measurements above 50% saw greater fiber disintegration than those with fewer readings below this threshold.

7 It's critical that brands, packaging manufacturers, and the compost industry reevaluate composting best management practices to support composters who accept compostable packaging.

The operational data collected from the Composting Consortium's study can be used to start that process.



8 All compostable products in the Composting Consortium's Disintegration Study had notably higher disintegration under the dose method compared to the mesh bag method.

This suggests that either the mesh bag method may result in a conservative disintegration result and/or the dose method may result in an overestimate of packaging disintegration.

9 We recommend brands advocate for surface area measurements when testing their compostable products and packaging at compost facilities.

In the case of field testing, surface area serves as a more pertinent metric for gauging the disintegration of compostable packaging in contrast to weight because it directly correlates with composters' concerns, namely, the visible presence of packaging within the pile.

10 Successful disintegration of compostable packaging alone is not enough to ensure widespread acceptance of these new materials.

Widespread adoption requires collaboration across the value chain, starting with clear labeling of compostable and non-compostable packaging, as well as investing in the appropriate infrastructure to collect these materials.



Field Testing at the Site Level is Another Tool



COMPOSTABLE
FIELD TESTING
PROGRAM



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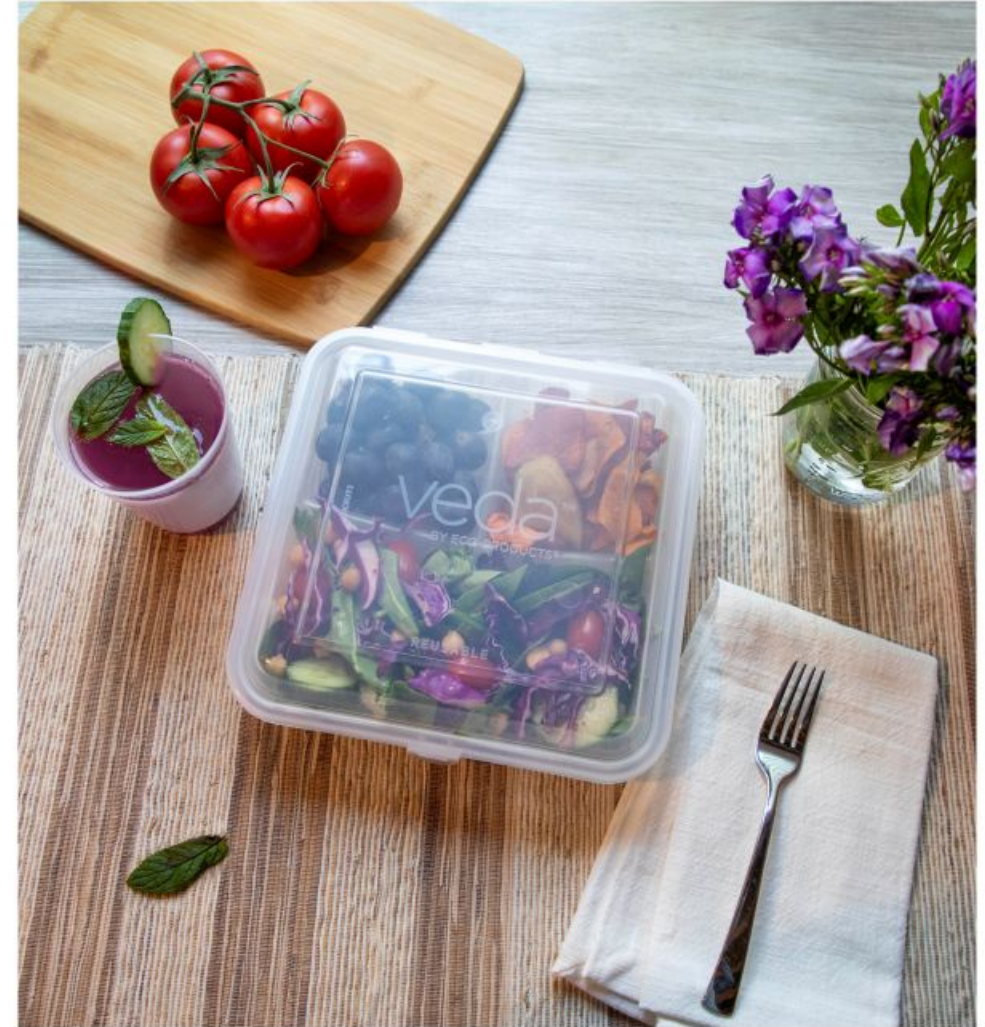
Consistent On-Item Labeling is a Good First Step

- Better labeling to address confusion across the value chain
- Offer as many compliant SKUs as possible
- Only sell what's allowed in the state
- Make compostables stand out
- Close the loop with our CHD program



The Future is Circular

- Circular systems require participation from everyone
- Need viable recovery options for single-use foodservice products while we transition to more reuse
- If we're going to ask composters to accept more diverse feedstocks, we must
 - 1) Ensure they break down efficiently
 - 2) Close the loop by buying finished compost!



THANK YOU!



Meghan Ibach

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Composter Perspective

Benefits of the Compostables Labeling Act:

Clarity in Customer Communications with labeling bill

Easier to spot contamination and recognize labeled products

Less Frequent “Look Alikes”



Composter Perspective

Combating Contamination

Manual Removal

1/2" vs 1/4" Screening

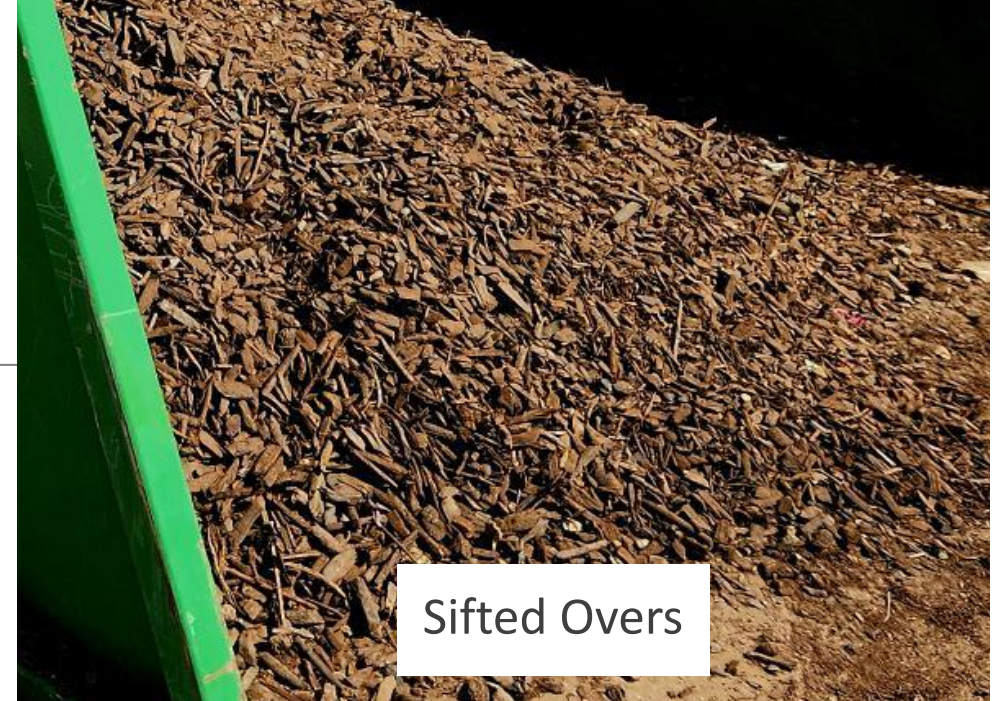
Overs Sifting with 1" screen

- Easier to manually remove contamination
- <25% yield of “contaminated” overs

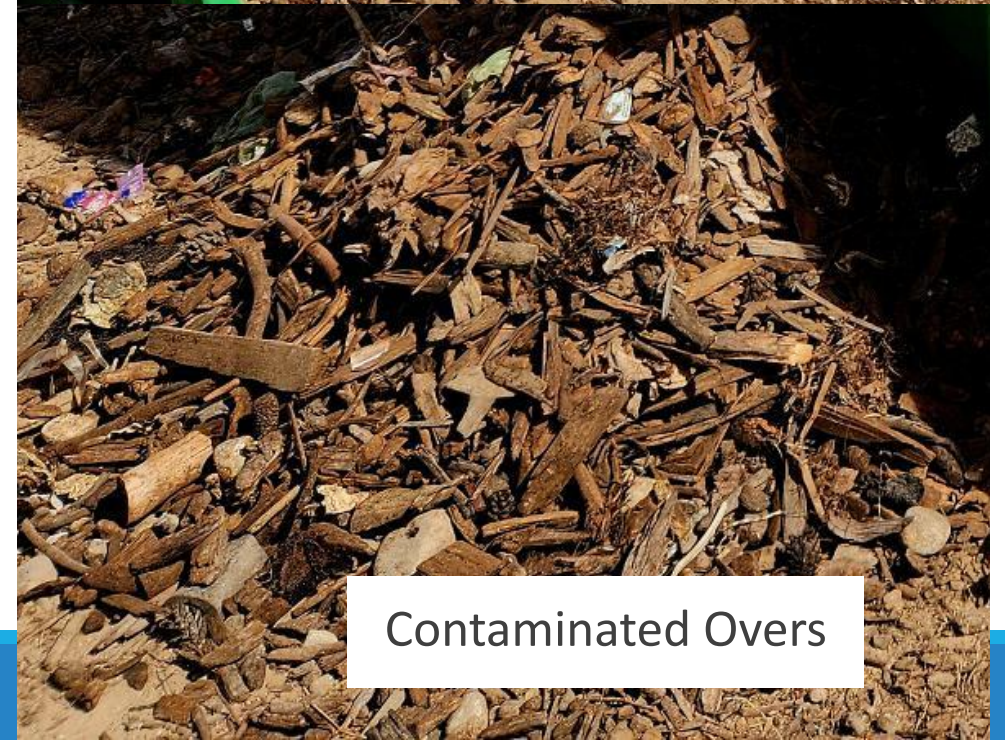




Sittler Trommel w/ 1" Screen



Sifted Overs



Contaminated Overs

Composter Perspective

Compostables Testing

- Control
- Low-Dose (approx 10% volume)
- High-Dose (2x low dose)

Measurements for

- Temperature
- Moisture
- Oxygen
- “Visibility” of compostables



Control



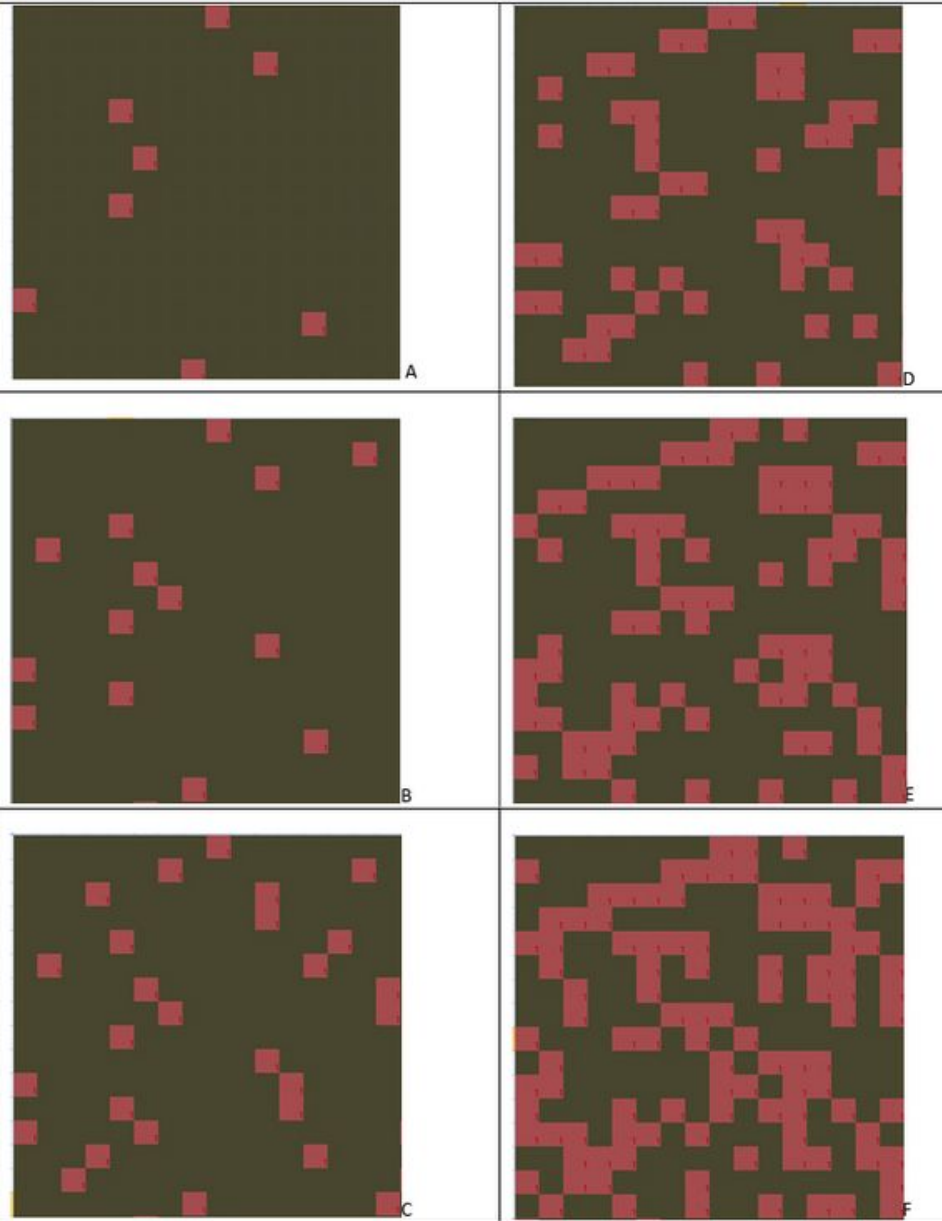
Low Dose



High Dose



Dosing Visualization



Compostable Fruit Stickers



Composter Perspective

Education

Engineering

Enforcement



Take Action in your community

Bring your own to-go containers if you go out to eat

CO Health code allows for clean dishes to be used

Promote 3 stream diversion at events or do a citizens initiative to make it law

Pass a local ordinance - Advocates in Denver led measure 306 - Waste No More Denver with 71% voter approval in 2022

EDUCATE -EDUCATE - EDUCATE



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How do we make the switch work?

Incorporating Business and public media to shift the intentionality and messaging.

Event organizers and event space managers need to understand the impacts of contamination

Decontaminating Retail Food Plating - take my class!

Event space promotion of good behaviour: best practices create a shift in society

