

Discussion Paper for Assembly Bill (AB) 1201 Public Workshop: Organic Waste Bifurcation Feasibility Determination

October 16, 2023

The purpose of this discussion paper is to solicit public feedback at an upcoming workshop on November 1, 2023, regarding the feasibility of collecting products¹ that are not acceptable compost feedstocks under the National Organic Program separately from organic wastes that are acceptable under the National Organic Program. This discussion paper provides the following information:

- I. AB 1201 Overview
- II. Overview of the USDA's National Organic Program
- III. Summary of Survey Results on Composting Infrastructure Capabilities

I. AB 1201 Overview

In October 2021, Governor Newsom signed into law [Assembly Bill \(AB\) 1201](#) (Ting, Chapter 504, Statutes of 2021), which added restrictions on when products could be labeled “compostable.” In addition to other requirements, Public Resources Code (PRC) section 42357(g)(1) requires products that are labeled with the term “compostable” or “home compostable” be designed to be associated with the recovery of desirable organic wastes that are collected for composting and must be an acceptable compost feedstock for organic agriculture under the US Department of Agriculture’s (USDA) National Organic Program (NOP).

According to a March 2021 Assembly Committee on Natural Resources [analysis of AB 1201](#), Assembly member Ting, the bill’s author, states, “AB 1201 ensures that California’s compost stream is safe from harmful chemicals and that what is labeled as compostable actually is compostable It’s crucial that claims of compostability reflect

¹ The use of the term “product” in this discussion paper is intended to be consistent with Public Resources Code (PRC) sections 42355 through 42358.5, which define product as: any consumer product; a package or a packaging component; a bag, sack, wrap, or other thin plastic sheet film product; or a food or beverage container or a container component, including, but not limited to, a straw, lid, or utensil.

the realities of the infrastructure where these products are managed and that we do not allow harmful ‘forever chemicals’ to impact our health through the compost process.”

A July 7, 2021, Senate Committee on Environmental Quality [analysis](#) of the bill states that “composting facilities are variable across the state, and many facilities do not have the capacity to break down plastic products. Composting is generally designed to manage organic waste, like yard clippings and food waste, and currently is not the ideal management option for plastic waste, even if it is technically compostable.”

AB 1201 added Section [42357\(g\)\(1\)\(B\)](#) to the Public Resources Code (PRC), which requires CalRecycle, on or before January 1, 2024, through a public process, to determine whether it would be feasible to separate the collection of products that are not acceptable compost feedstocks under the NOP from collection of organic wastes that are acceptable compost feedstocks under the NOP.

Section 457(g)(1)(B) further states that “if the department determines that such bifurcation is feasible and would enable efficient processing by solid waste processing facilities, the department shall adopt regulations on or before January 1, 2026, to establish a bifurcated approach, and products that are not collected for the purpose of recovering organic waste that is suitable for use in organic agricultural applications shall comply with the department’s regulations and are not subject to the requirements of this subparagraph.” In other words, if CalRecycle determines it would be feasible to establish a separate collection system for products not appropriate as an input for compost used in organic agriculture, it would be required to adopt requirements specific to such products, and the NOP requirement would not apply to such products.

If CalRecycle cannot determine that it is feasible to collect products separately, then it would be illegal on and after January 1, 2026, to sell products in California that are labeled “compostable” or “home compostable” unless those products are acceptable compost feedstocks under the NOP and satisfy the other applicable requirements of PRC 42357.

II. Overview of USDA's National Organic Program

Purpose

The [National Organic Program](#) (NOP) is a federal regulatory program implemented by the United States Department of Agriculture (USDA). Through its NOP regulations, the USDA develops and enforces consistent national standards for organically produced agricultural products sold in the United States. The NOP accredits third-party organizations to certify that farms and businesses meet the national organic standards. The USDA and certifiers work together to enforce standards, ensuring a level playing field for producers, and protecting consumer confidence in the integrity of the USDA Organic Seal. [The National Organic Standards Board](#) (NOSB) oversees the development of rules and regulations for production, handling, labeling, and enforcement of all USDA organically produced agricultural products.

Certification

Organically produced agricultural products must use agricultural practices that foster resource cycling, promote ecological balance, maintain, and improve soil and water quality, minimize the use of synthetic materials, and conserve biodiversity. Organically produced agricultural products must be overseen by a [USDA-accredited certifying agent](#), produced without excluded or prohibited methods, and produced using allowed substances. Compost use is allowed in organic agricultural production if the materials used to produce the compost are specifically allowed as compost feedstocks under the NOP.

Compost that is suitable for use in organic crop and livestock production in California is required to be registered as an [Organic Input Material](#) (OIM) with the California Department of Food and Agriculture (CDFA). Through the OIM Program, materials claiming to be appropriate for use in organic agricultural production are verified to comply with the USDA NOP Standards and the California Fertilizing Materials Law and Regulations.

The [Organic Materials Review Institute](#) (OMRI) is an international non-profit organization that verifies compost feedstocks to determine compliance with the USDA NOP and other organic standards for compost production. Compost manufacturers provide detailed information about their compost and OMRI verifies it against organic standards. In California, a compost manufacturer may choose to have their compost OMRI-listed for marketing purposes, however being OMRI-listed is not required and the compost must be [registered](#) as an OIM with CDFA to be used in organic agriculture.

National List of Allowed and Prohibited Substances

The NOP regulations include a [National List of Allowed and Prohibited Substances](#), which identifies substances that are either allowed or prohibited for use in organic crop and livestock production. In general, non-synthetic substances are allowed and synthetic substances are prohibited.

The NOP regulations define “[synthetic](#)” as “a substance that is formulated or manufactured by a chemical process or by a process that chemically changes a substance extracted from naturally occurring plant, animal, or mineral sources, except that such term shall not apply to substances created by naturally occurring biological processes.” Furthermore, if the process to manufacture a product includes physical or chemical processes that introduce synthetic materials including, but not limited to, coatings, binding agents, or additives to non-synthetic raw materials (e.g., bamboo), the product may be considered synthetic, and therefore, not acceptable under the NOP.

Under current NOP regulations, ***the only synthetic materials acceptable as compost feedstocks are newspapers or other recycled paper without glossy or colored ink.*** The USDA [has further clarified](#) that the phrase “‘without glossy or colored ink’ was intended to prevent the use of *glossy paper* or colored inks” (Emphasis added). Therefore, products produced with any synthetic materials other than non-glossy paper without colored inks would need [review and recommendation](#) by the NOSB before they can be utilized in compost for organic agriculture production.

Any individual or organization may submit a petition to the NOSB to add, remove, or amend the listing of a substance. If the petition meets the [National List Petition Guidelines](#), it is then reviewed by the NOSB based on specific criteria in the Organic Foods Production Act of 1990. A recent example is the [petition submitted](#) by the Biodegradable Products Institute (BPI) on August 30, 2023, seeking to change the definition of compost and add a definition for compost feedstocks. The petition also suggests that final compost products be permitted to contain *de minimis* traces of synthetic substances not on the National List.

III. Summary of Survey Results on Composting Infrastructure Capabilities

CalRecycle is not aware of any jurisdictions in California that provide two separate organic waste collection services, such as one for traditional compost feedstocks (e.g., yard trimmings and food scraps) and one for other organic waste.

In-State Composting Capabilities

In June 2023, CalRecycle conducted a survey of all 34 mixed material composting facilities in California to determine which products are composted. Mixed material composting facilities were selected for the survey because those facilities may have permits that would allow the receipt and processing of some products. Twenty-four facilities responded to the survey (a 70 percent response rate). Overall, the results indicate that the vast majority of mixed material composting facilities accept uncoated paper and fiber products that get processed into finished compost, but they do not accept plastic products for processing into finished compost.

Plastic and plastic-containing materials

The survey asked composting facility operators which plastic and plastic-containing materials (including plastic and plastic-lined fiber products claimed to be compostable) they accept and incorporate into finished compost. Of the 24 responses, 20 facilities stated that plastic and plastic-containing materials are treated as contamination and are screened out. The other four facilities responded that they accept plastic bags claimed to be compostable². **No other plastic or plastic-containing materials are composted by any of the facilities that responded.**

Survey respondents were asked to rank their top three concerns related to accepting plastic and plastic-containing materials. The top three concerns were:

1. “Physical contaminants affect quality/marketability” – 54 percent of respondents listed this as a concern; 33 percent ranked it as the top concern.
2. “Losing compost product certifications (OIM or OMRI) and resulting impacts on marketability” – 38 percent of respondents listed this as a concern; 21 percent ranked it as the top concern.
3. “Certified compostable plastics are indistinguishable from traditional fossil-based plastics” – 38 percent of respondents listed this as a concern.

Table 1 summarizes all the concerns identified by survey respondents.

Table 1. Concerns related to accepting and processing plastics and plastic-containing products into finished compost.

² In follow-up discussions, two respondents stated that they remove the bags as contamination, and one respondent stated that they no longer accept plastic bags claimed to be compostable.

Concern	Listed as a concern	Listed as the top concern
"Physical contaminants affect quality/marketability."	54%	33%
"Losing compost product certifications (OIM or OMRI) and resulting impacts on marketability."	38%	21%
"Certified compostable plastics are indistinguishable from traditional fossil-based plastics."	38%	0%
"Certified compostable plastics do not biodegrade in the timeframe required by the facility."	25%	8%
"Microplastics, specifically, affect quality/marketability."	17%	0%
"PFAS (Per-and polyfluoroalkyl substances) contamination affects quality/marketability."	13%	0%
"Processing certified compostable plastics is too difficult and/or expensive."	8%	4%

Paper and fiber materials

The survey also asked which paper and fiber materials composting facility operators accept and process into finished compost.³ Table 2 summarizes the responses.

Table 2. Percentage of survey respondents that accept paper and fiber materials.

Paper and fiber materials accepted and composted by facilities	Percentage of Respondents
Uncoated paper/paperboard	83%
Bamboo fiber	29%
Wax-lined paper/paperboard - e.g., hot or cold cups	21%
Sugarcane/bagasse fiber	17%
Clay-coated paper/paperboard - e.g., cereal boxes	13%

Compost certification and marketing programs

The survey asked composting facility operators if they participate in any certification or marketing programs. Table 3 summarizes the responses. Ten respondents (42 percent) participate in all three programs listed in Table 3. One facility stated they participate in the [California Leafy Greens Marketing Agreement](#), and one facility stated that none of these certifications provide value in their market at this time.

³ Paper or fiber products that are lined with plastic were included with the plastic and plastic containing materials category in the survey.

Table 3. Participation in Certification and Marketing Programs

Certification Program	Percentage of Respondents
US Composting Council Seal of Testing Assurance (STA Certified)	67%
CDFA Organic Input Material Program (OIM)	63%
Organic Materials Review Institute (OMRI)	58%

Current capacity to remove contamination

As noted earlier, contamination is the primary concern related to accepting products that claim to be compostable. Many of these products do not break down in the timeframe required by composters, and because such products are often indistinguishable from those that do break down within that timeframe, all products claimed to be compostable get screened out of the process along with other products.

Table 4 shows the strategies and technologies that composting facilities use to screen out contamination before, during, and after composting. Most respondents indicated that they use a combination of some or all of these methods. All survey respondents reported using at least one of these strategies to remove or reduce contamination.

Table 4. Percentage of respondents using various equipment or strategies to remove contamination.

Contamination Removal Method	Before Composting	During Composting	After Composting
Reject incoming loads to avoid excessive contamination ⁴	79%	n/a	n/a
Manual Sorting	70%	33%	13%
Mechanical Sorting	38%	n/a	75%
De-Packaging Equipment	25%	n/a	n/a

Capacity to process multiple organic waste streams

Survey respondents were asked if it would be feasible to process two separate organic waste streams to keep organic wastes that are acceptable compost feedstocks under the NOP separate from products that are not acceptable compost feedstocks under the NOP. Fifty-eight percent stated that processing separate streams would not be feasible. Twenty-five percent responded “yes”, and twelve percent stated that it would be feasible, but it would be expensive, and contamination would still be a concern.

Seventy-nine percent of respondents stated that adding the capacity to process a separate stream would increase their operational costs by more than 20 percent.

⁴ Eight percent of respondents reported that the only strategy they use to avoid contamination is rejecting loads.

Respondents stated that keeping waste streams separated to prevent cross-contamination would lead to inefficient operating conditions, reduced compost production, and increased labor costs. They also stated that facilities would need to double their processing capacity to have two streams, because there cannot be any cross-contamination. They further stated that “CDFA and OMRI require equipment to be cleaned before handling organic material which is very time consuming and creates inefficiencies in an operation.”