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**Workshop Update: June 2018**

# **Compost & Digestate Volumes Are Increasing — Are California Markets Ready?**

## **INTRODUCTION**

California has implemented climate change and recycling regulations that will significantly impact how organic ‘wastes’ are managed in the State, greatly increasing their rate of recycling. This reality places California in a national leadership role for organics recovery and recycling. To reach its goals, California will not only be required to increase its organics recycling infrastructure, but also markets for compost, digestate and woody materials.

In support of these efforts, a **BioCycle WEST COAST18** workshop was organized on March 26, 2018 by BioCycle and R. Alexander Associates, Inc. Close to 90 individuals involved in the California organics recycling industry, including those representing related State agencies, worked together using their experience and knowledge to identify industry gaps and logjams that negatively impact industry expansion, while identifying “actionable” policies, regulations, research, and market incentives that can be utilized to enhance market development for the recovered products.

## **Workshop Format**

- Short background presentations given to outline current status of California’s organics recycling industry, followed by some initial discussions with all participants
- Breakout groups/roundtable discussions on specific topics, which identified current roadblocks and potential solutions to them (noted as limiting factors and actions, respectively in the following Breakout group summaries)
- Information distilled and reported back to the entire group by the breakout group leaders
- Compiling this brief report to communicate workshop findings

## **Breakout Groups**

- Regulatory Requirements/Issues
- Market Expansion Requirements: Agricultural Applications
- Market Expansion Requirements: Non-Agricultural Applications
- Government Initiatives To Enhance Compost, Digestate and Mulch Market Expansion
- Product Quality & Contamination

Our hope is that the results of these efforts will provide insight to policy makers, and others, pertaining to the assistance required to meet California’s organics recycling goals and requirements. Suggested “Next Steps” are outlined by the organizers in the final section of this document.

# Regulatory Requirements/Issues

## Limiting Factor

Chip and grind facilities are almost “unregulated”, as compared to composting facilities

## Actions

- Require permitting, enforcement oversight by Local Enforcement Agency (LEA), CA Department of Food & Agriculture (CDFA), CA Air Resources Board (CARB) — something beyond current “notification”
- Require chip and grinders to test ground materials for pathogens like *E. coli* if the ground material is to be land applied (see next set of bullets). Then, require that test results be forwarded to landowners within a specified period of time. [Alternative requirement could be a rapid (e.g., 24- to 48-hour) on-site test at chip and grind facility (before material leaves) for pathogens like *E. coli*]

## Limiting Factor

Landowners receiving products from chip and grind operations are responsible for quality issues (not the facility producing them), as the material time limit (48 hours on site) means that test results are received after material leaves the site

## Actions

- Legitimize land application as appropriate mulching, not illegal disposal
- Include testing by chip and grinders in permitting, enforcement oversight by LEA, CDFA, CARB (described above); also regulate contaminant content of chip and grind products, similar to limits for compost

## Limiting Factor

Food safety

## Action

Designate different classes of chip and grind products, those allowable for food production, and those that are not (based on heavy metal and pathogen test results)

## Limiting Factor

Composters are overregulated compared to other industries, such as dairies (CARB)

## Action

Convene a Summit of regulators to identify appropriate enforcement, reduce gaps/overlap between regulatory agencies, not just in comparison to dairies, but more generally to address confusion. Could result in immense improvement to have regulators discuss related issues and improve consistency of their oversight.

## Summary

Interestingly, the majority of the discussion in this roundtable focused on the perceived inequities of composting facility regulations, compared to chip and grind facilities (and others). It further focused on product quality and safety requirements (often less stringent) than at composting facilities. Both of these issues may result in unfair competition, economic inequity, and potential negative issues regarding product end use.

## Organizer comments/potential “limiting factor” resolutions

- Disallow sale of compost from chip and grind facilities, unless the compost was purchased elsewhere, as it is not legal to produce compost at these sites
- Enforce testing requirement at chip and grind facilities if material is going to be land applied
- As a group, regulators could also evaluate the impact of various regulations on the market acceptance of recycled organics products, other than those related to inert contaminant limit
- May need regulations forcing lower contamination level in organics collection contracts to reduce inert contamination at processing facilities
- Organizers corresponded with testing lab about a “quick” test for pathogens, and learned that Fecal coliform testing can be completed within 48 hours. Salmonella can only be completed within 48 hours if the first stage of the testing comes back negative; if it comes back positive then confirmation steps can add up to 5 days to the process.

# Market Expansion Requirements: Agricultural Applications

## Limiting Factor

Farmers don't understand that CDEFA Organic Input Material (OIM) registration is required to use products in organic agriculture (even if already OMRI Listed)

## Action

CDEFA and CA Certified Organic Farmers (CCOF) need to conduct more outreach to organic farmers

## Limiting Factor

Overall costs associated with usage of recycled organics in agriculture, including cost of transportation (compost and mulch often generated far from agricultural centers)

## Actions

- Create landfill avoidance fee where as a city/generator pays to incentivize wider distribution of products
- Generate better comparative cost/benefit data

- Create soil carbon incentive paid to farmers from state's Greenhouse Gas Reduction Fund (GGRF) to use compost. Create mulching incentive paid to farmers to mulch trees with recycled organics products (Clean Green (CG), wood), to reduce water usage

## Limiting Factor

Lack of understanding about how compost affects nutrient management plans

## Action

CDEFA (or other entity) should operate a program to assist growers in complying with CA Water Board nutrient management regulations with regard to nutrient availability in compost. Include crop advisors, extension service agents, etc. (Also, educate Farm Business Network)

## Limiting Factor

Underfunded UC Extension Services

## Action

Initiate bigger industry marketing effort for recycled organics products, and improve engagement with agriculture

## Limiting Factor

CDEFA does not quarantine non-pathogen reduced materials moving from county to county

## Action

LEAs should enforce pathogen and noxious weed destruction (and inert contamination) regulations

## Summary

The discussion in this roundtable focused on better educating farmers and unbiased organizations that assist farmers, as well as establishing creative financial incentives for farmers to use compost and mulch. It further identified regulatory conflicts with the distribution of products that may harbor plant pests or weeds.

## Organizer comments/potential "limiting factor" resolutions

- Educate Extension Service Agents about recycled organics product usage. Agents need to provide technical advice and assistance in a broader way in agriculture about recycled organics products. To deliver this, agents need to take time/make investment in education
- Perhaps utilize funds from Healthy Soils Initiative to educate Agents
- Create a guidance document to better inform crop advisors about nutrient availability from recycled organics products, as well as potential nutrient drift
- LEAs should enforce noxious weed/invasive species regulations on ground green waste processed at chip and grinding facilities, but those actions are at odds with current regulations (the 48 hour required turnaround at the chip and grind site does not make it possible to meet pathogen destruction)
- Complete research evaluating the ability of ground green waste to carry insects, pathogens and viable weed seeds

# Market Expansion Requirements: Non-Agricultural Applications

## Limiting Factor

Lack of tools and field trials assisting product usage

## Actions

- Complete more co-op extension and university field trials and demos on compost and mulch usage
- Utilize existing available tools and resources, including findings from field trials and demos.

## Limiting Factor

Lack of education within composting industry as a whole in terms of product development and usage

## Action

Create tools and events to educate the industry about compost use, etc.

## Limiting Factor

General funding of market development efforts

## Action

Identify internal and extended funding programs

## Limiting Factor

Lack of implementation of existing regulation pertaining to product usage (e.g., MWEL0)

## Action

Cal EPA, and others, should identify barriers to usage, and enforce directives

## Limiting Factor

Lack of incentives to product usage

## Actions

- Create incentives
- Evaluate and implement means of appropriate accountability

## Limiting Factor

Promote Healthy Soils Initiatives

## Actions

- Identify economic and environmental benefits (e.g., account for air, soil, water benefits)
- Promote compost socks as 2 for price of 1— compost sock is temporary erosion control, then can utilize compost in sock as blanket to amend soil

## Limiting Factor

Product branding activities

## Actions

- Educate producers about branding and creating products that fit specific applications
- Consider creating regionally based (community) brands

## Limiting Factor

No delineation of applications of recycled organics based on whether urban/rural/suburban construction and development

## Action

Require accountability and education; emphasize multiple benefits of recycled organics product usage

## Summary

The discussion in this roundtable focused around the need of agencies to enforce recycled organics product usage requirements, and to create new incentives (probably, environmentally based). Further discussions focused on educating composters about product and market development, as well as funding of research and creating a library of research completed.

## Organizer comments/potential “limiting factor” resolutions

- Producers must invest in sales and marketing tools, staffing
- If one doesn't already exist, create a centralized repository, e.g., website with these sales, marketing and end use tools, research findings, and resources (If one exists, make funding and/or staff available to keep it current.)

# Government Initiatives To Enhance Compost, Digestate And Mulch Market Expansion

## Limiting Factor

Municipalities may have restrictions/obstacles that hinder and/or prevent them from creating a recycled organics product marketing program based on a business model

## Actions

- Utilize public/private partnership models based on highest and best use of recycled organics products
- CA agencies should be largest purchasers of recycled organic products. Need interagency cooperation

## Limiting Factor

Lack of commonality of product specifications among regions

## Actions

- California must mandate that California agencies (and other public entities) use recycled organic products
- Include requirements for such in legislation and enforce requirements requiring compost, and other recycled product, usage by all publicly funded entities

## Limiting Factor

Incentives are not realized throughout purchasing chain

## Actions

- Create unit-based incentive or financial type of incentive, e.g., rebate
- Each county should use recycled products generated within county, where possible.

## Limiting Factor

Regulatory environment doesn't balance risk/benefit [e.g., agency disallowing the use of compost because of one risk and ignoring other 4-5 benefits]

## Action

Create forum of associated agencies for pragmatic discussion of issues

## Limiting Factor

Lack of incentives for EPP (environmentally preferable purchasing)

## Actions

- Educate/encourage State agencies to purchase (and specify) recycled organics products
- Create document identifying regulations and incentives available, where usage gaps exist, work towards common usage of related terms

## Limiting Factor

Product must drive process vs. process driving product

## Action

Educate producers about product requirements of individual markets (application) and how to produce products for those markets (applications)

## Summary

The discussion in this roundtable focused on educating public and private buyers about product usage requirements/regulations, as well as enhancing their usage. Further discussions focused on enhancing the direct incentives that buyers may enjoy through recycled organic product usage, as well as enforcing the requirements.

## Organizer comments/potential "limiting factor" resolutions

- Need research to calculate and illustrate risks and benefits of recycled organics usage
- Need to breakdown silos of knowledge, perhaps using end user working groups
- Must make sure that the specific products (e.g., "compost") are mentioned by name in end use initiatives and specifications

# Product Quality & Contamination

## Limiting Factor

Lack of statewide awareness/education about the contamination problem among generators (residential, commercial, industrial)

## Actions

- Create state program that includes a model educational campaign; provide funding for the related initiatives
  - Targets residential & institutional, commercial (multifamily and commercial facilities) and industrial (food processing, beverage)
- Create state working groups with stakeholders and regulatory entities, e.g., CalRecycle, Water Board, CDFA, CARB, Association of Compost Producers, to coordinate efforts; provide funding for these working groups to carry out tasks

## Limiting Factor

Are competing performance standards between collection efficiency (e.g., automated collection which eliminates ability of crew to check for contamination in organics cart) and organics quality in collection contract language. Leads to:

- Inconsistent organics collection contract language
- Hauling companies lacking opportunity to screen bins or educate public

## Actions

- Develop creative contract language that addresses both productivity/efficiency and organics quality; incorporate contract language that incentivizes low contaminant levels — or adopt municipal ordinances to address
  - Develop QA/QC standard
  - Empower haulers to discipline generators

## Limiting Factor

Lack of regulatory enforcement (there is not a clear message from LEAs)

## Action

Educate LEAs and other regulators about measurement of inert contamination, how best to enforce regulations

## Limiting Factor

Lack of understanding of the economics of contaminant management and removal (during collection and processing of feedstock, and screening of final product)

## Action

Identify funding to assist in research and education efforts

## Limiting Factor

Material compostability

## Actions

- Consider municipal bans on plastic
- Identify compostable products and improve consumer ability to distinguish them from non-compostable products
- Identify appropriate composting processes for compostable products (BMP document, training)

## Limiting Factor

Need improved separation technologies

## Action

Develop separation and measurement methods (e.g., field testing tools for physical contaminants)

## Summary

Discussion focused around the need for wide-scale education regarding the reduction of contamination in feedstocks, as well as funding to assist in this education. The need for establishing best management practices (BMPs) to manage contaminants once they are found in the feedstocks and recycled organics end products was also discussed.

## Organizer comments/potential “limiting factor” resolutions

- Adopt requirements for cities/counties to educate populous about contamination
- Suggest / require lower allowable contamination limits in materials collected at curbside
- Create product improvement strategies document for composters and collection firms

# Next Steps

This Workshop summary is designed to facilitate — and streamline — implementation of the Actions discussed by Workshop participants. These Actions can be refined for various stakeholder groups, including regulators, legislators, educators, and end users of recycled organic products.

## **Specific Next Steps to consider include:**

- Provide this document to California government regulatory and nonregulatory officials (state, regional and local), and state legislators. This document illustrates that the organics recycling industry has an understanding of the necessary requirements to meeting State organics recycling legislation and regulation.
- Schedule a meeting of key organics recycling stakeholder groups to help facilitate development of a Regulator Summit on how to level the regulatory “playing field” for various categories of organics recycling operations, and identify appropriate enforcement mechanisms for each category, e.g., chip & grind versus composting facilities.
- Draft regulatory, legislative, Model Ordinance, and/or contract language to encapsulate specific actions recommended in this Workshop summary document. For example, draft regulatory language or guidance that improves oversight of chip and grind, especially when material is land applied; Draft contract language for organics haulers that incentivizes the elimination of inert contamination in recycled organics feedstocks, especially food and green waste.
- Encourage open dialogue among entities working towards organics recycling goals, including regulators, which can reduce regulatory overlap
- Draft sample outreach, education and training materials for end users of recycled organic products and circulate them among agricultural extension agents, local enforcement agencies, etc.
- Create incentives and/or requirements for using these environmentally preferred recycled organics products

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