



Monterey Council Sustainable Work Group The Future of Recycling: Monterey County Produce Industry

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Presenters

- Nikki Rodoni**, CEO & Founder, Measure to Improve, LLC
- Teresa Bui**, Special Advisor to the Director of CalRecycle
- Tim Brownell**, Director of Operations for MRWMD
- Louis Vasquez**, Director of Corporate Development, Revolution Plastics
- Marcy Rustad**, Chief Operating Officer, Think Beyond Plastic
- Robert Donnelly**, CEO, California Almond Growers Association
- Tod Rinkenberger**, Director of Business Development, Netafim
- Joe Ross**, Founder and Co-CEO, rPlanet earth
- Lucky Westwood**, Operations Manager, California Giant Berry Farms
- Frank Toves**, IDC Irrigation and Construction

Participants



Live Polling Questions and Answers

What is your most challenging material to recycle?

Film plastic	Polystyrene foam	Film Plastic
plastic film	Laminated materials	Drip Hose
Film	Films	Plastic rope ties
Wax Boxes	Mulch film	Clamshells
Plastic film	Drip hose	Dirty plastic/mulch film
Expanded Polystyrene	Plastic film	Plastic mulch
Strapping tape	Plastic	Clams with labels
Film plastic	ESL film	Mulch film
Film plastic	clamshells	Plastics
Mixed materials	Clamshells	Film plastic
Plastic Film	Waxed cardboard	PP
Thermoform containers	Plastic	Plastic film
Mulch	Fumigation film	Drip tape

Growers, Processors, and Shippers - What are your biggest barriers to recycling?

Control what is being dumped	Education & Training. Thanks for today's program! 😊	Getting management to buy into it
Storage space for large volume recyclables	Some materials not recyclable	Demand for recycled materials
Staff time	Materials	Monetary incentive
Cost	Mixed waste	Space
Employee hours, cost, space	Too much material	Time
Labor	Cost	

How do you recommend we continue/expand this effort to find solutions supply chain wide?

Establish a coop / working committee with representatives from all parts of the supply chain from grower to consumer to take the technology and find solutions	If we don't participate in addressing this issue, it will be addressed without our best interests considered. Stay engaged!	Use packaging supplies that are natural and compostable in the environment.
Consider CorkOak as a solution to plastic use.	Collaboration and education	On site visits and tours to key stakeholder operations
More boots on the ground.	Start non-profit	Circular Economy!!!
Share contacts for all who attended.	Promote local success stories/ case studies	Creating connections for trial/innovation
Learn more about all of it.	Education	Policy initiatives
Education forums	Transparency	Task force
Incentives	Task force	Thank you Nikki!
Challenge your supply chain	Provide more links to partnerships	Keep the communication channels open

Nikki Rodoni, Welcome & Set the stage for the speakers

- This will be a zero waste event; we will be diverting at least 90% of the material from the landfill.

Recycling Crisis

- Monterey County Agriculture is among the most productive in the world.
- Plastic is a valuable resource in this industry, used at every level of our operations, but it comes with environmental costs.
- China's National Sword policy sets much tougher standards for contamination levels in recyclable materials.
- No one person or group can solve this problem alone.
- Innovation is not new to the agriculture industry; we will be able to meet these challenges.

Teresa Bui, Special Advisor to the Director of CalRecycle

State of Recycling in California

- A. CalRecycle oversees all state recycling programs and works with industries on e-waste, rigid plastic packaging, beverage containers, extended producer responsibility (EPR), and other issues.
- B. California has overarching waste from landfill diversion goals and material-specific goals, including goals for reducing organic waste in landfill.
 - a. The state cannot meet its targets without addressing the problems posed by packaging and the lack of domestic recycling infrastructure.
- C. "Gone is the time when we could put our waste on a cargo ship and call it recycling."
 - a. China's [National Sword Policy](#) significantly reduces the amount of recycling the US can send to foreign markets and reduces the acceptable contamination levels.
 - i. Domestic waste management facilities were focusing on collection.
 - ii. Materials that previously went to China now go to landfill.
 - b. Recycling, once a revenue generator, is now a cost to local governments, who now promote waste prevention.
- D. CalRecycle is tackling packaging waste through its Packaging Reform Initiative, which will review all packaging material types in the California market to identify goals and strategic methods to reduce packaging waste.
 - a. A waste characterization study found 26% of waste in California is from packaging.
 - b. Part of the solution will be building closed loop system within the state, where materials can be produced, used, processed, and recycled into new products.
- E. What can you do?
 - a. Use reusable containers and systems.
 - b. Expect more from your vendors.
 - c. Apply compost.

Tim Brownell, Director of Operations for MRWMD

Future of Recycling for the Monterey County Produce Industry

- A. MRWMD has a variety of facilities and processes residential and commercial materials.
 - a. The district's new MRF will help California meet its diversion goals.
- B. Challenges and Solutions
 - a. Labels and label backing clog the MRF, requiring hours daily to remove. Labels and label back should go to landfill.

- b. Strict contamination rules in China mean that “If you don't know, throw it in the trash”
- c. The “What Goes Where?” app – a mobile application for consumers that explains where and how to recycle materials.
- C. The materials generated in agriculture cannot be recycled curbside, but certain materials can be recycled if they are clean, dry, and source separated.
 - a. Generators of large quantities of these materials should work cooperatively with their vendors to identify solutions for recycling.

Luis Vasquez, Director of Corporate Development for Revolution Plastics

Extended Producer Responsibility in the Agricultural Film Market

- A. Commercial agricultural films are a wide range of materials, leading to challenges for recyclers and processors.
 - a. These materials will continue to be used because they increase yields, are cost effective, and are easy to use.
- B. “Extended producer responsibility is the producer’s obligation to design products with all stages of the lifecycle in mind”
 - a. Manufacturers need to work collaboratively with recyclers to create beneficial recycling solutions and products for consumers
- C. Revolution Plastics has developed a 5-Step Producer Standard
 - a. Closed-loop Manufacturing
 - b. Strategic Distribution Partnerships
 - c. High-Quality Products for Various Agriculture Applications
 - d. Efficient PCR (Post-Consumer Recycled) Production at Recycling Facilities
 - e. Disrupt Consumer Film Product by Introducing PCR-rich Products
- D. Revolution Plastics is currently focusing on collecting products made with thicker plastics, but hope to expand capacity in the future.
 - a. They would like to work collaboratively with local businesses to understand their recycling needs and to create solutions.

Marcy Rustad, Chief Operating Officer, Think Beyond Plastic

Advancing Commercialization of Innovation and Technology for a New Plastics Economy

- A. Plastic will not go away. It has unique characteristics – it’s durable, light weight, etc. but we need a new relationship with plastic.
- B. The industries with the most money and greatest political will are working against creating plastic alternatives. This includes the chemical and petroleum industries.
 - a. We expect a 20-fold increase in plastic usage by 2050.
 - b. Only 14% of recyclable plastics makes it into the recycling stream.
- C. The Ellen McArthur Foundation is spearheading the international work on plastic, and Europe is far ahead of the United States.
- D. Think Beyond Plastic is a nonprofit innovation accelerator that works with researchers, innovators, and industries to work upstream and find alternatives to plastics.
 - a. These alternatives might be new designs or new materials, such as algae-based packaging.
 - b. Some industries are holding Innovation Challenges on an international basis to find the brightest minds and ideas around the world.

Success Stories

Robert Donnelly, CEO for Central California Almond Growers Association

- The Central California Almond Growers Association is a co-op that uses fumigation plastic to cover almonds brought in from the field. The almond association is a large generator of plastic and was looking for a way to lead the industry with plastic recycling.
- The Association worked with Revolution Plastics, to build a closed loop system, which is cheaper than other suppliers.
- "I'm glad we got together. One of the main things is it's not that you have to take a risk, you just have to think outside the box with someone like Luis with Revolution Plastics that can help everyone out."

Tod Rinkenberger, Director of Business Development for Netafim

- Netafim is a global leader in drip irrigation that is always looking for unique, market-based solutions to problems.
 - For years Netafim has incorporated recycled content in products for the landscape industry because a sustainability certification, LEED, gave building owners points for using products with recycled content.
- Netafim is interested in closed-loop systems; it is a matter of finding demand signals to drive them.

Joe Ross, Founder and Co-CEO of rPlanet Earth

- R Planet Earth was established with the goal of taking clamshells, plastic bottles, and other PET plastics and recycling them back into their original form, not downcycling.
- Getting enough material and getting a consistent volume of material has been challenging.
- As an industry, agriculture needs to share information. A solid technology base will make the difference.

Lucky Westwood, Operations Manager for CalGiant

- Remember the formula: reduce, reuse, recycle. Reduce is first for a reason.
 - Even small reductions in packaging size or weight go a long way when you consider the total volume of packaging.
 - Not all parts of the US can recycle the same materials.
- Communicating across the entire supply chain and working together is critical for solving this problem.
- Recommended resources:
 - [APR website](#) they have published design guides for packaging materials.
 - [How2Recycle website](#) they are creating a labeling system for informing consumers on how to recycle/dispose of products.

Frank Toves, IDC Irrigation and Construction

- IDC focuses on construction and irrigation systems.
 - As drip tape use increases, there's going to be an abundance of drip tape with no outlet.
 - IDC is working with producers and Revolution Plastics to find outlets for drip tape.
- Growers need to start challenging manufacturers to do better, find more innovative solutions, find products that don't need to be recycled, or add more recycled content to the products they already have.