

# California Bioresources Alliance Symposium 2022

Day 1, Wednesday Nov. 9, 2022, 9 – 5 pm



***Bioresources Technology, Collaboration, Investment:  
Managing the Transition to Local Circular Economies in California***

# California Bioresources Alliance Symposium 2022

## Housekeeping and Agenda

### Housekeeping

- To reduce disruptions chat, microphones, and videos have been disabled
- The Q&A feature is available at all times
- <https://www.epa.gov/ca/california-bioresources-alliance-symposia>

### Agenda

- Program materials available at this website: <https://bit.ly/2022-cbas-program-bios>

### Recording

- This webinar is being recorded
- A link to this recording will be available after the symposium. For questions, contact Hossein Edalati ([ahedalati@ucdavis.edu](mailto:ahedalati@ucdavis.edu))

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# **2022 California Bioresources Alliance Symposium Program**

## *Managing the Transition to Local Circular Economies in California*

### **Wednesday, November 9:**

**Session 1. Bioresource Feedstocks 1**

**Session 2. Bioresource Feedstocks 2**

**Session 3. Siting and Treatment 1**

**Session 4. Siting and Treatment 2**

### **Thursday, November 10**

**Session 5. Bioresources Products 1**

**Session 6. SB 1383 Update**

**Session 7. Bioresources Products 2**

**Session 8. Question and Answer with Panelists**

# Today's Agenda – Morning

<b>Time</b>	<b>Program</b>		
<b>09:00-09:15 AM</b>	<b>Opening</b>		
<b>09:15-10:45 AM</b>	<b>Session 1: Bioresources Feedstocks 1</b>		
	Dan Noble (Moderator)	Exec. Director, Assoc. of Compost Producers	
	Mike McCullough	Professor, CalPoly San Luis Obispo	Update on California Clean Biomass Collaborative
	Megan Ibach & Jenny Slepian	Product/Zero Waste Specialist, Eco-Products	Embracing Compostable Service Ware
	Mary Lindemuth	Environmental Prog. Specialist, City of Sunnyvale	Food Scrap Collection Issues
<b>10:45-11:00 AM</b>	<b>Break</b>		
<b>11:00-12:30 PM</b>	<b>Session 2: Bioresources Feedstocks 2</b>		
	Kevin Eslinger (Moderator)	Staff, CA Air Resources Board	
	Erin Levine	Resource Recovery Manager, World Centric	Designing Service Ware with End in Mind
	Steve Kaffka	Professor, Dept. Plant Sciences, UC Davis	Manure Nutrient Management
	Abdolhossein Edalati	PhD Student, Dept. Bio. & Ag. Engr., UC Davis	Utilizing Dairy Manure as Biofertilizer & OMA
<b>12:30-01:30 PM</b>	<b>Lunch</b>		

# Today's Agenda – Afternoon

<b>Time</b>	<b>Program</b>		
<b>12:30-01:30 PM</b>	<b>Lunch</b>		
<b>01:30-03:00 PM</b>	<b>Session 3: Siting and Treatment 1</b>		
	Lauren Fondahl (Moderator)	Environmental Engineer, US EPA Region 9	
	Jason Dow	General Manager, Central Marin Sanitation Agency	Waste Receiving and Power Generation at Midsized POTW
	Roberta Franco	Sr. Environmental Scientist, CDFA	Implementing Dairy Digester Research and Development
	Cassandra Farrant	Head of Env. Credit Compliance, Amp Americas	Manure Digestion for Low Carbon Fuel
<b>03:00-03:15 PM</b>	<b>Break</b>		
<b>03:15-04:45 PM</b>	<b>Session 4: Siting Treatment 2</b>		
	Chuck White, PE (Moderator)	Senior Advisor; Manatt, Phelps, and Philips, LLP.	
	Josiah Hunt	CEO, Pacific Biochar	Biochar Applications and Markets
	Michelle Applegate	Sr. Director Public Policy, Project Canary	TBD
	Steve Wirtel	Executive VP Business Dev, KORE Infrastructure	KORE Gasification Projects
<b>04:45-05:00 PM</b>	<b>Day 1 Closing</b>		

# Session 1: Bioresources Feedstocks 1

09:15-10:45 AM      **Session 1: Bioresources Feedstocks 1**

**Moderator: Dan Noble**, Executive Director, Association of Compost Producers

## **Speakers:**

- **Dr. Mike McCullough**, Professor, Cal Poly San Luis Obispo:  
*Update on California Clean Biomass Collaborative*
- **Meghan Ibach & Jenny Slepian**, Product/Zero Waste Specialist, Eco-Products:  
*Embracing Compostable Service Ware*
- **Mary Lindemuth**, Environmental Program Specialist, City of Sunnyvale:  
*Food Scrap Collection Issues*

10:45-11:00 AM      Break

# California Bioresources Alliance Symposium 2022

## ***Bioresources Technology, Collaboration, Investment: Managing the Transition to Local Circular Economies in California***

NOV 9 & 10, 2022, 9:00 am – 5:00 pm, both days – *A Free Zoom Symposium*

## **Break Until 11:00 A.M.**

## **Coming Up...**

### **11:00-12:30 PM Session 2: Bioresources Feedstocks 2**

Kevin Eslinger (Moderator)

Staff, CA Air Resources Board

Erin Levine

Resource Recovery Manager, World Centric

Designing Service Ware with End in Mind

Steve Kaffka

Professor, Dept. Plant Sciences, UC Davis

Manure Nutrient Management

Abdolhossein Edalati

PhD Student, Dept. Bio. & Ag. Engr., UC Davis

Utilizing Dairy Manure as Biofertilizer & OMA

## Session 2: Bioresources Feedstocks 2

09:15-10:45 AM

### Session 2: Bioresources Feedstocks 2

**Moderator:** Kevin Eslinger, Staff, California Air Resources Board

**Speakers:**

- **Erin Levine**, Resource Recovery Manager, World Centric:  
*Designing Service Ware with End in Mind*
- **Steve Kaffka**, Professor, UC Davis Plant Sciences Dept:  
*Dairy Manure Nutrient Management*
- **Abdolhossein Edalati**, PhD Student, UC Davis Bio & Ag Engineering Dept:  
*Utilizing Dairy Manure as Biofertilizer & Organic Matter Amendments*

12:30-01:30 PM

Break



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## ***Bioresources Technology, Collaboration, Investment: Managing the Transition to Local Circular Economies in California***

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### **Nov 9 – Lunch Break Until 1:30 PM**

## **Coming Up...**

#### **01:30-03:00 PM Session 3: Siting and Treatment 1**

Lauren Fondahl (Moderator)	Environmental Engineer, US EPA Region 9	
Jason Dow	General Manager, Central Marin Sanitation Agency	Waste Receiving and Power Generation at Midsized POTW
Roberta Franco	Sr. Environmental Scientist, CDFA	Implementing Dairy Digester Research and Development
Cassandra Farrant	Head of Env. Credit Compliance, Amp Americas	Manure Digestion for Low Carbon Fuel

# Session 3: Siting and Treatment 1

01:30-03:00 PM      **Session 3: Siting and Treatment 1**

**Moderator:** Lauren Fondahl, US EPA Region 9

**Speakers:**

- **Jason Dow**, General Manager, Central Marin Sanitation Agency:  
*Waste Receiving and Power Generation at a Midsized POTW*
- **Roberta Franco**, California Department of Food and Agriculture:  
*Implementing Dairy Digester Research and Development*
- **Cassandra Farrant**, Head, Environmental Credit Compliance, AMP Americas:  
*Manure Digestion for Low Carbon Fuel*

03:00-03:15 PM      Break

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## ***Bioresources Technology, Collaboration, Investment: Managing the Transition to Local Circular Economies in California***

NOV 9 & 10, 2022, 9:00 am – 5:00 pm, both days – *A Free Zoom Symposium*

### **Break Until 3:15 P.M.**

## **Coming Up...**

### **03:15-04:45 PM Session 4: Siting Treatment 2**

Chuck White, PE (Moderator)	Senior Advisor; Manatt, Phelps, and Philips, LLP.	
Josiah Hunt	CEO, Pacific Biochar	Biochar Applications and Markets
Michelle Applegate	Sr. Director Public Policy, Project Canary	TBD
Steve Wirtel	Executive VP Business Dev, KORE Infrastructure	KORE Gasification Projects

## Session 4: Siting and Treatment 2

03:15-04:45 PM

### Session 4: Siting and Treatment 2

**Moderator: Chuck White;** Manatt, Phelps, and Phillips LLP

#### **Speakers:**

- **Josiah Hunt**, Pacific Biochar:  
*Biochar Applications and Markets*
- **Michelle Applegate**, Canary Products:  
*The Measurement Economy*
- **Steve Wirtel**, KORE:  
*KORE Gasification Projects*

04:45-05:00 PM

Day 1 Closing

# THANK YOU!

**Please join us again at 9 A.M. Tomorrow for Day 2**

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# Tomorrow's Agenda

Time	Program		
09:00-09:15 AM	<b>Announcements</b>		
09:15-10:45 AM	<b>Session 5: Bioresources Products 1</b>		
	Lauren Fondahl (Moderator)	Environmental Engineer, US EPA Region 9	
	Bob Ford	Business Development Manager, Synagro	Establishing Uses for Bioresources Products
	Sally Brown	Professor, School of Forest Res., U. of Washington	Biosolids and Urban Agriculture
	Ned Beecher	Consultant, formerly with NEBRA	Biosolid Use and Disposal Database
	Brian Vagg	President, Sprouting Soil	How to Foster Optimal Soil Health
10:45-11:00 AM	<b>Break</b>		
11:15-12:30 PM	<b>Session 6: SB 1383 Update</b>		
	Chuck White, PE (Moderator)	Senior Advisor, Manatt, Phelps, and Phillips, LLP.	
	Andrew Parrish	Sr. Environmental Scientist, CalRecycle	SB 1383 Update
	Chad White	Project Manager, Marin RCD	Biomass Utilization Study
12:30-01:30 PM	<b>Lunch</b>		
01:30-03:00 PM	<b>Session 7: Bioresources Products 2</b>		
	Tom McGrath (Moderator)	CEO, Vital Clean Techn Ventures	Moderator
	Jim McNelly	Owner, Renewable Carbon Management	Biofertilizer Economics and Environmental Impact
	Joe Maceda	CEO, 3G&S Inc.	Low Cost Green Hydrogen from Biomass
	Clayton Turner	Chief Visionary Officer, Search and Rescue Drone	Biochar — Expanding Applications & Markets
	Tom Fang, PE	Sr. Engineer, LA County Sanitation Districts	Food Waste Co-digestion and Renewable Fuels
03:00-03:15 PM	<b>Break</b>		
03:15-04:45 PM	<b>Session 8: Question and Answer with Panelists</b>		
	Dan Noble (Moderator)	Exec. Director, Assoc. of Compost Producers	
	Mike McCullough	Professor, CalPoly San Luis Obispo	
	Erin Levine	Resource Recovery Manager, World Centric	
	Sally Brown	Professor, School of Forest Res., U. of Washington	
	Jim McNelly	Owner, Renewable Carbon Management	
	Brian Vagg	President, Sprouting Soil	
	Joe Maceda	CEO, 3G&S Inc.	
	Ned Beecher	Consultant, formerly with NEBRA	
04:45-05:00 PM	<b>Wrap-up and next steps</b>		

# California Bioresources Alliance Symposium 2022

Day 2, Thursday Nov. 10, 2022, 9 – 5 pm



***Bioresources Technology, Collaboration, Investment:  
Managing the Transition to Local Circular Economies in California***

# Yesterday's Agenda

Time	Program		
09:00-09:15 AM	<b>Opening</b>		
09:15-10:45 AM	<b>Session 1: Bioresources Feedstocks 1</b>		
	Dan Noble (Moderator)	Exec. Director, Assoc. of Compost Producers	
	Mike McCullough	Professor, CalPoly San Luis Obispo	Update on California Clean Biomass Collaborative
	Megan Ibach & Jenny Slepian	Product/Zero Waste Specialist, Eco-Products	Embracing Compostable Service Ware
	Mary Lindemuth	Environmental Prog. Specialist, City of Sunnyvale	Food Scrap Collection Issues
10:45-11:00 AM	<b>Break</b>		
11:00-12:30 PM	<b>Session 2: Bioresources Feedstocks 2</b>		
	Kevin Eslinger (Moderator)	Staff, CA Air Resources Board	
	Erin Levine	Resource Recovery Manager, World Centric	Designing Service Ware with End in Mind
	Steve Kaffka	Professor, Dept. Plant Sciences, UC Davis	Manure Nutrient Management
	Abdolhossein Edalati	PhD Student, Dept. Bio. & Ag. Engr., UC Davis	Utilizing Dairy Manure as Biofertilizer & OMA
12:30-01:30 PM	<b>Lunch</b>		
01:30-03:00 PM	<b>Session 3: Siting and Treatment 1</b>		
	Lauren Fondahl (Moderator)	Environmental Engineer, US EPA Region 9	
	Jason Dow	General Manager, Central Marin Sanitation Agency	Waste Receiving and Power Generation at Midsized POTW
	Roberta Franco	Sr. Environmental Scientist, CDFA	Implementing Dairy Digester Research and Development
	Cassandra Farrant	Head of Env. Credit Compliance, Amp Americas	Manure Digestion for Low Carbon Fuel
03:00-03:15 PM	<b>Break</b>		
03:15-04:45 PM	<b>Session 4: Siting Treatment 2</b>		
	Chuck White, PE (Moderator)	Senior Advisor; Manatt, Phelps, and Philips, LLP.	
	Josiah Hunt	CEO, Pacific Biochar	Biochar Applications and Markets
	Michelle Applegate	Sr. Director Public Policy, Project Canary	TBD
	Steve Wirtel	Executive VP Business Dev, KORE Infrastructure	KORE Gasification Projects
04:45-05:00 PM	<b>Day 1 Closing</b>		



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# Today's Agenda – Morning

<b>Time</b>	<b>Program</b>		
<b>09:00-09:15 AM</b>	<b>Announcements</b>		
<b>09:15-10:45 AM</b>	<b>Session 5: Bioresources Products 1</b>		
	Lauren Fondahl (Moderator)	Environmental Engineer, US EPA Region 9	
	Bob Ford	Business Development Manager, Synagro	Establishing Uses for Bioresources Products
	Sally Brown	Professor, School of Forest Res., U. of Washington	Biosolids and Urban Agriculture
	Ned Beecher	Consultant, formerly with NEBRA	Biosolid Use and Disposal Database
	Brian Vagg	President, Sprouting Soil	How to Foster Optimal Soil Health
<b>10:45-11:00 AM</b>	<b>Break</b>		
<b>11:15-12:30 PM</b>	<b>Session 6: SB 1383 Update</b>		
	Chuck White, PE (Moderator)	Senior Advisor; Manatt, Phelps, and Phillips, LLP.	
	Andrew Parrish	Sr. Environmental Scientist, CalRecycle	SB 1383 Update
	Chad White	Project Manager, Marin RCD	Biomass Utiliization Study
<b>12:30-01:30 PM</b>	<b>Lunch</b>		

# Today's Agenda – Afternoon

<b>Time</b>	<b>Program</b>		
<b>01:30-03:00 PM</b>	<b>Session 7: Bioresources Products 2</b>		
	Tom McGrath (Moderator)	CEO, Vital Clean Techn Ventures	Moderator
	Jim McNelly	Owner, Renewable Carbon Management	Biofertilizer Economics and Environmental Impact
	Joe Maceda	CEO, 3G&S Inc.	Low Cost Green Hydrogen from Biomass
	Clayton Turner	Chief Visionary Officer, Search and Rescue Drone	Biochar — Expanding Applications & Markets
	Tom Fang, PE	Sr. Engineer, LA County Sanitation Districts	Food Waste Co-digestion and Renewable Fuels
<b>03:00-03:15 PM</b>	<b>Break</b>		
<b>03:15-04:45 PM</b>	<b>Session 8: Question and Answer with Panelists</b>		
	Dan Noble (Moderator)	Exec. Director, Assoc. of Compost Producers	
	Mike McCullough	Professor, CalPoly San Luis Obispo	
	Clayton Turner	Chief Visionary Officer, Search and Rescue Drone	
	Sally Brown	Professor, School of Forest Res., U. of Washington	
	Jim McNelly	Owner, Renewable Carbon Management	
	Brian Vagg	President, Sprouting Soil	
	Joe Maceda	CEO, 3G&S Inc.	
	Tom McGrath	CEO, Vital Clean Techn Ventures	
	Ned Beecher	Consultant, formerly with NEBRA	
<b>04:45-05:00 PM</b>	<b>Wrap-up and next steps</b>		

# Session 5: Bioresources Products 1

09:15-10:45 AM

## Session 5: Bioresources Products 1

**Moderator:** Lauren Fondahl, US EPA Region 9

### Speakers:

- **Bob Ford**, Business Development Manager, Synagro:  
*Establishing Uses for Bioresource Products*
- **Sally Brown**, Professor, Univ. of Washington Dept. of Forest Resources:  
*Biosolids and Urban Agriculture*
- **Ned Beecher**, Consultant, Northeast Biosolids:  
*Biosolids Use and Disposal Database*
- **Brian Vagg**, President, Sprouting Soil:  
*Biosolids Use and Disposal Database*

11:05-11:20 AM

Break

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### **Break Until 11:20 A.M.**

## **Coming Up...**

**11:20-12:30 PM**

### **Session 6: SB 1383 Update**

Chuck White, PE (Moderator)

Andrew Parrish

Chad White

Senior Advisor; Manatt, Phelps, and Phillips, LLP.

Sr. Environmental Scientist, CalRecycle

Project Manager, Marin RCD

SB 1383 Update

Biomass Utilization Study

# Session 6: SB 1383 Update

11:20-12:30 PM

**Session 6: SB 1383 Update**

**Moderator: Dan Noble**, Executive Director, Association of Compost Producers

## **Speakers:**

- **Andrew Parrish**, Senior Environmental Scientist, CalRecycle:  
*SB 1383 Update*
- **Chad White**, Project Manager, Marin RCD:  
*Biomass Utilization Study*

12:30-01:30 PM

Break

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## ***Bioresources Technology, Collaboration, Investment: Managing the Transition to Local Circular Economies in California***

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### **Nov 10 – Lunch Break Until 1:30 PM**

## **Coming Up...**

**01:30-03:00 PM**

### **Session 7: Bioresources Products 2**

Tom McGrath (Moderator)

CEO, Vital Clean Techn Ventures

Moderator

Jim McNelly

Owner, Renewable Carbon Management

Biofertilizer Economics and Environmental Impact

Joe Maceda

CEO, 3G&S Inc.

Low Cost Green Hydrogen from Biomass

Clayton Turner

Chief Visionary Officer, Search and Rescue Drone

Biochar — Expanding Applications & Markets

Tom Fang, PE

Sr. Engineer, LA County Sanitation Districts

Food Waste Co-digestion and Renewable Fuels

# Session 7: Bioresources Products 2

01:30-03:00 PM

## Session 7: Bioresources Products 2

**Moderator: Tom McGrath**, CEO, Vital Clean Technology Ventures

### Speakers:

- **Jim McNelly**, Owner, Renewable Carbon Management:  
*Biofertilizer Economics and Environmental Impact*
- **Joseph Maceda**, CEO, 3G&S, Inc:  
*Low-Cost Green Hydrogen from Biomass*
- **Clayton Tuner**, Chief Visionary Officer, Search and Rescue Drone:  
*Biochar – Expanding Applications and Markets*
- **Tom Fang**, Senior Engineer, LA County Sanitation Districts:  
*Food Waste Co-digestion and Renewable Fuels*

03:00-03:15 PM

Break



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## ***Bioresources Technology, Collaboration, Investment: Managing the Transition to Local Circular Economies in California***

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### **Lunch Break Until 3:15 PM. Coming Up...**

**03:15-04:45 PM**

#### **Session 8: Question and Answer with Panelists**

Dan Noble (Moderator)

Exec. Director, Assoc. of Compost Producers

Mike McCullough

Professor, CalPoly San Luis Obispo

Clayton Turner

Chief Visionary Officer, Search and Rescue Drone

Sally Brown

Professor, School of Forest Res., U. of Washington

Jim McNelly

Owner, Renewable Carbon Management

Brian Vagg

President, Sprouting Soil

Joe Maceda

CEO, 3G&S Inc.

Tom McGrath

CEO, Vital Clean Techn Ventures

Ned Beecher

Consultant, formerly with NEBRA

# Session 8: Question and Answer for Panelists

03:15-04:45 PM

**Session 8: Q&A for Panelists**

**Moderator: Dan Noble**, Executive Director, Association of Compost Producers

## **Panelists:**

- **Mike McCullough**, Professor, Cal Poly San Luis Obispo
- **Clayton Tuner**, Chief Visionary Officer, Search and Rescue Drone
- **Sally Brown**, Professor, Univ. of Washington Dept. of Forest Resources
- **Jim McNelly**, Owner, Renewable Carbon Management
- **Brian Vagg**, President, Sprouting Soil
- **Joseph Maceda**, CEO, 3G&S, Inc
- **Ned Beecher**, Consultant, Northeast Biosolids
- **Tom McGrath**, CEO, Vital Clean Technology Ventures

04:45-05:00 PM

Break

# THANK YOU!

**We look forward to seeing you again at the  
2023 California Bioresources Alliance Symposium**

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