

CAL POLY COMPOST TRAINING SCHEDULE APRIL 23-27

Monday, April 23

- 8:00 a.m. **Registration** at Cal Poly Agricultural Operations Farm Shop, Building 9
- 8:30 a.m. **Welcome**, Introduction of Participants, Introduction to Course
- 9:00 a.m. **Biology of Composting** - *Presenter: Mark Hutchinson*
- 9:30 a.m. **Composting Methods and Systems** - *Presenter: Mark King*
- 10:15 a.m. Break
- 10:30 a.m. **Compost Feedstocks** - Characteristics, types, potential problems, complementary, C:N, Compost Feedstocks, Laboratory Exercise [inside]
Presenter: Bill Seekins
- 12:00 noon Lunch
- 1:00 p.m. **Composting Site Selection and Management** – Getting the Right Start:
Selection, development, requirements
Best Management Practices for odor, vector, leachate, litter control, and feedstock contamination. Keeping neighbors involved and educated about activities
Presenter: Mark King, with Sam Vigil, Civil and Environmental Engineering, Cal Poly
- 2:30 p.m. Break
- 2:45 p.m. **Site Development Exercise** [outside] - *Presenter: Mark King*
- 3:45 p.m. **Tour of Cal Poly Compost Unit** [outside]
Presenters: Kevin Piper and Steve Sherman
Functions, Types and Safe Use of Composting Equipment
Presenter: Mark Hutchinson

CAL POLY COMPOST TRAINING SCHEDULE APRIL 23-27

Tuesday, April 24

8:00 a.m. **Regulations and Operating Considerations**

*Presenters: Matt Cotton, Owner, Integrated Waste Management Consulting, LLC
& Board Director, US Composting Council*

Doug Graham, Co-Owner, New Era Farm Service

Integrated Waste Management Consulting specializes in solid waste management planning, permitting, environmental, regulatory compliance and composting. Mr. Cotton's experience ranges from evaluating the solid waste management plans of major regional areas, to managing the complex issues of regulatory compliance, to the nuts and bolts of hands-on composting. He has completed hundreds of significant solid waste projects, including permitting and aiding in the development of some of the major composting facilities in California. Mr. Cotton currently serves on the Board of Directors of the US Composting Council where he served as president of the board for three years.

New Era Farm Service, Inc. is an agronomic service corporation specializing in organic matter management for agricultural soils and crop nutritional support systems. This is accomplished by improving soil organic matter quality and by balancing soil and plant mineral content. Recommendations are uniquely balanced between traditional inputs and advanced methods of fertilization, including sustainable farming practices. New Era equips growers with a cost-effective fertility program which meets the needs of the current crop and continually improves the quality and productive capacity of the soil.

10:15 a.m. Break

10:30 a.m. **Pile Management** [indoor]: Aeration, Mixing, Moisture, Porosity, Density, Pile Size - *Presenter: Bill Seekins*

12:00 noon Lunch

1:00 p.m. **Pile Management** [outdoor exercise]: Pile Sampling, Temperature Monitoring, Volume Measurement - *Presenter: Bill Seekins*

2:00 p.m. **Troubleshooting the Compost Pile** [indoor] – *Presenter: Bill Seekins*

3:15 p.m. Break

3:30 p.m. **Troubleshooting** [outdoor activity] – *Presenters: Maine Compost Team*

CAL POLY COMPOST TRAINING SCHEDULE APRIL 23-27

Wednesday, April 25

All-Day South Coast Field Trip [off campus]

- 7:30 a.m. Assemble at Cal Poly Ag Operations Farm Shop (Building 9)
(corner of Highland Drive and Via Carta)
- 7:45 a.m. Depart Cal Poly via bus
- 8:45 a.m. Arrive **Engel and Gray**
250 South Ray Rd
Santa Maria, CA

Meeting with Bob Engel, President, Engel & Gray

Engel & Gray, Inc. has been serving the Central Coast of California since 1946. Along with trucking and construction operations, they operate a regional composting facility in the Santa Maria Valley. They process organic waste from home, farm and plant – producing the Harvest Blend brand of compost to the highest standards. The process begins with prime feedstock including local harvest byproducts and other organic materials to obtain optimum carbon/nitrogen ratios. Oxygen and moisture are monitored to obtain the most advantageous conditions, all the while scrutinizing temperatures for pathogen and weed seed kill. www.engelandgray.com

- 10:30 a.m. Depart Engel and Gray
- 11:30 a.m. Arrive **The Berry Man, Inc.**
205 W. Montecito Street
Santa Barbara, CA

Meeting with Eric Lohela, City of Santa Barbara Environmental Services
www.santabarbaraca.gov/Recycling-Trash/businesses_food.htm

The City of Santa Barbara is now offering foodscrap collection service to compliment greenwaste, recycling, and trash collection services already available for businesses. It's simple: put the foodscrap in the yellow bin, and they will be hauled away and composted. The compost is used by local farmers to grow more food.

CAL POLY COMPOST TRAINING SCHEDULE APRIL 23-27

Wednesday, April 25 - continued

11:30 a.m. **The Berry Man, Inc.** (continued)

Meeting with Jean Pierre Jammet, General Manager, The Berry Man, Inc.

The Berry Man, Inc, is a Santa Barbara company owned and operated by Santa Barbara resident Guy De Mangeon. The Berry Man started in 1989 and grew as demand for local produce spread. Exceptional geographic location allows The Berry Man, Inc. to provide fresh produce to local restaurants, schools, institutions and caterers. Sixty percent of The Berry Man produce is grown within seventy-five miles of Santa Barbara. Pre-consumer fruit and vegetable scraps are recycled through the city's composting program.

Noon Depart The Berry Man, Inc. for lunch

12:15 p.m. **Picnic Lunch** at Leadbetter Beach, Santa Barbara
(Shoreline Drive and Loma Alta)

1:00 p.m. Depart for Agromin

2:00 p.m. Arrive **Agromin**
6859 Arnold Road
Oxnard, CA

Meeting with Jasch Janowitz, Project Development and Facility Compliance & Dave Green, Vice President/Marketing & Sales

Agromin is a pioneer in the sustainable management of biodegradable resources. They are dedicated to the enhancement of their business, society and the environment through innovation along each turn of the recycling loop. Each year, almost 380,000 tons of recycled organic materials are converted into rich living compost, mulch and other premium soil products for area farmers, landscapers and gardeners. Resulting from this process of sustainably renewing our soil resources, Agromin contributes to water conservation, prevention of soil depletion, reduction in greenhouse gas (GHG) emissions and a decreased need for oil-based fertilizers and chemicals.

www.agromin.com

4:00 p.m. Depart Agromin

CAL POLY COMPOST TRAINING SCHEDULE APRIL 23-27

Wednesday, April 25 - continued

4:20 p.m. Arrive **Gills Onions**
1051 S. Pacific Ave.
Oxnard, CA

*Meeting with Laura Hamman, Sustainability Coordinator &
Nelia Alamo, Director of Sales and Marketing*

Gills Onions converts 100% of their daily onion waste (up to 150 tons) into ultra-clean energy and cattle feed. Gills Onions is one of the largest, most innovative and sustainable fresh-cut onion processing plants in the world. At the 14-acre processing facility in Oxnard, more than 90,000 tons of yellow and red onions are peeled and processed. The company always had a passion for exploring new technologies, and has patiently trialed and applied innovation & technology to all aspects of their operations. Their philosophy applies not only to product development, but to energy, water conservation, reduced use of materials for processing, packaging and farming - all the way to the latest technologies for transportation and shipping. www.gillsonions.com

5:20 p.m. Depart Gills Onions

5:45 p.m. Dinner on own at Ventura Harbor Village
1583 Spinnaker Drive
Ventura, CA

7:00 p.m. Depart Ventura Harbor Village for Cal Poly
Field Trip Review and Q & A in bus

9:30 p.m. Estimated arrival at Cal Poly

CAL POLY COMPOST TRAINING SCHEDULE APRIL 23-27

Thursday, April 26

- 8:00 a.m. **Recipe Development** [classroom] - *Presenter: Bill Seekins*
Reading Feedstock Analysis - hands-on activity
- 9:45 a.m. Break
- 10:00 a.m. **Recipe Development** - hands on activity [outside at Farm Shop]
Presenters: Bill Seeking, Mark Hutchinson, Mark King
- 12:00 p.m. Lunch
- 1:00 p.m. **Recipe Development** - Completion of Exercise [inside]
Presenter: Bill Seekins
- 1:45 p.m. **Quality, Maturity and Stability** - *Presenter: Mark Hutchinson*
- 2:45 p.m. Break
- 3:00 p.m. **Anaerobic Digestion:** Cal Poly Dairy Unit and "Recip" Project
Presenter: Tryg Lundquist, Civil & Environmental Engineering, Cal Poly
- 3:45 p.m. Depart Cal Poly for Dairy Creek Golf Course
- 4:00 p.m. **Dairy Creek Golf Course**
2990 Dairy Creek Road
San Luis Obispo

Presenter: Josh Heptig, Golf Course Superintendent

Dairy Creek is a sustainable golf course, with the goal of becoming a zero-waste site. A compost facility/demonstration park has been created using in-vessel composters, worm bins, and a compost tea brewer that turn green waste and food waste into usable organic fertilizer products. These efforts will also provide opportunities for a more sustainable business model by reducing waste streams and generating low-cost or no-cost fertilizer products that may reduce pesticide and water usage as well.

CAL POLY COMPOST TRAINING SCHEDULE APRIL 23-27

Friday, April 27

- 8:00 a.m. **Set up Solvita** maturity testing exercise
Presenters: Mark Hutchinson and Bill Seekins
- 8:15 a.m. **Compost Utilization** - *Presenter: Mark Hutchinson*
- 9:15 a.m. **Compost Tea** – *Presenter: Mark King*
- 10:00 a.m. Break
- 10:15 a.m. **Vermicomposting** – *Presenter: Jack Chambers, Owner, Sonoma Valley Worm Farm*

For over forty years, the Sonoma Valley Worm Farm has specialized in selling red worms for composting. They also produce high quality, organic vermicompost and vermicompost tea, and have just introduced new aerated composting systems and continuous flow vermicomposters in cooperation with VermiVision, Inc. The Worm Farm believes that vermiculture, vermicompost, compost teas, and of course, the noble worm are transforming and revolutionizing agriculture now and will continue to do so into the future.

- 11:00 a.m. **The Universe below our Feet: An Introduction to the Soil Foodweb**
Presenter: Ian Davidson, Founder, Biologic Systems USA, LLC

BioLogic Systems provides consulting services and products for the management of farm, orchard, pasture, vineyard, garden, turf, and landscape systems utilizing soil microbiology testing methods developed by Soil Foodweb, Inc. Their mission is to design sustainable programs and products that work within nature's own biological systems, providing a productive way forward. Their methods rely on the use of high quality aerobic compost and compost teas to establish beneficial microorganisms in soil and on plant surfaces that support healthy plant growth. BioLogic Systems participates in a global network of researchers who are demonstrating the economic viability and environmental sustainability of these methods.

- 12:00 a.m. **Laboratory Exercise on Maturity Testing**
Presenters: Mark Hutchinson and Bill Seekins

- 12:30 p.m. Lunch



CAL POLY COMPOST TRAINING SCHEDULE APRIL 23-27

Friday, April 27 - continued

- 1:30 p.m. **The "Business" of Composting / Compost Market Strategies**
Presenter: Mark King
- 2:30 p.m. **Certification Exam & Course Evaluation**
- 4:00 p.m. **Adjourn**