Solana Center

Quarterly Newsletter

Spring 2014

IN THIS ISSUE

FEATURED ARTICLE

Sending excess food to the landfill is the final option. ***What are the first five steps we can take to reduce waste of organic resources?***

Read on...

LOOK FOR US AT THESE UPCOMING EVENTS!

...and contact Andrea if you'd like to help us out!

ROTLINE: How Do I Add Compost to Container Plants?

Container gardening is an incredible solution to a variety of growing woes, especially when it comes to the creative and economical use of space. Gardeners lacking backyards or yards with full sun exposure, gardeners working with truly difficult

March 30
CARLSBAD FLOWER FIELDS KIDS DAY
CARLSBAD

April 13
AVOCADO FESTIVAL
FALLBROOK

April 24 - 26
LAKESIDE RODEO
LAKESIDE

April 26
SAN DIEGO EARTH FAIR
SAN DIEGO

May 10
OIL FILTER EXCHANGE
ENCINITAS

May 31 - June 1
FIESTA DEL SOL
SOLANA BEACH

Click here to view our upcoming events page!

REGISTER FOR THESE **FREE COMPOSTING WORKSHOPS!**

TRADITIONAL COMPOSTING AND VERMICOMPOSTING BASICS

April 12
Ocean Knoll Farm
Encinitas

June 7
Fallbrook Community Center

soil, and new gardeners looking to gain confidence in the craft are common beneficiaries of the practice. So where does compost come in? It's a key ingredient to establishing *and* maintaining a nutrient-rich growing environment for your containerized plants!

When setting up a new container, there are three principal considerations:
(1) Filling it with a nutrient rich growing medium
(2) Reducing compaction of the growing medium
(3) Promoting good drainage

Here are a few strategies to achieve these goals:

- **Make sure the container has drainage holes** at the bottom. Drill them yourself, if necessary. Plant roots that are sitting in pools of water will rot.
- **Add some chunky, woody materials** near the bottom of the container (i.e. bark, tree branch segments). These materials will also serve as a slow-release carbon source.
- **Create a light and fluffy growing medium**. There are many possible mixes, here's one example we at Solana Center have found useful:
    - 1/3 compost or a compost/vermicompost mixture
    - 1/3 coconut coir
    - 1/3 sandy soil

The process of adding compost to an existing container plant is not unlike adding compost to plants in a larger-scale garden. The trick is to **provide a continual supply of nutrients over time**, as the small space of the container paired with regular watering can lead to rather rapid nutrient deprivation.

Click the link below to learn how to maintain nutrient-rich container gardens, and to see some springtime container crop suggestions:

Read on...

HOT TOPICS:
Anaerobic Decomposition

Fallbrook

May 17
Water Conservation Garden
El Cajon/Rancho San Diego

May 18
Carlsbad Flower Fields
Carlsbad

May 31
Ocean Knoll Farm
Encinitas

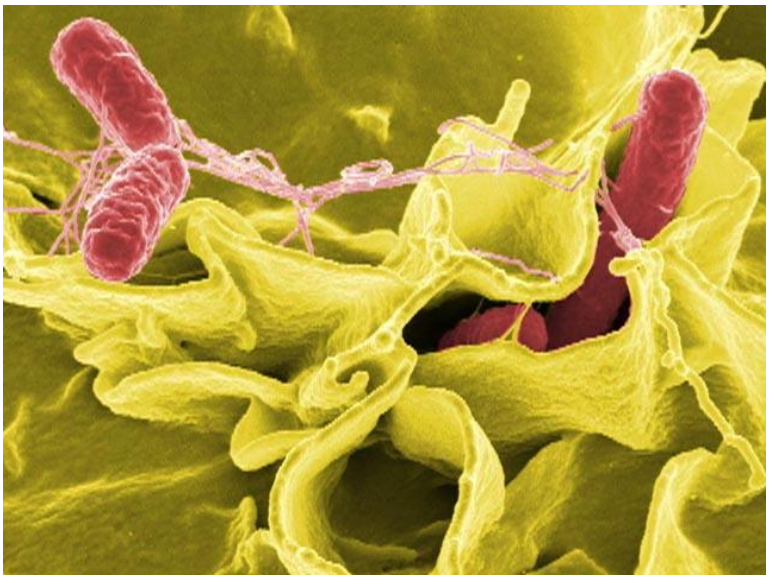
SPECIALTY WORKSHOPS

Manure Management Composting Basics

May 3
Sweetwater Campgrounds
Bonita

Click here for more information and to register!

READY TO BECOME A MASTER COMPOSTER?



Typical backyard composting relies on aerobic processes that require air circulation throughout the pile to support the work of resident microorganism communities. While much backyard composting is rooted in the practice of such aerobic decomposition, it is not the only method of nutrient cycling.

Often, backyard composers are warned to prevent the development of 'anaerobic conditions' in their pile. Yet, anaerobic composting exists its own right, and is used extensively on a large scale to manage waste and produce fuel worldwide. The process relies on microorganisms that do not require (and in fact, do not tolerate) oxygen to complete their decomposition work via fermentation. This type of anaerobic decomposition is done in a sealed vat and is a passive, continuous method of decomposition. These processes create contents that are slimy and smell of sulfur, indicators of successful fermentation. Large quantities of organic material decomposing in the absence of oxygen emit 'biogas', a gaseous mixture of methane and carbon dioxide that can be reclaimed for heating and cooling. Large scale operations process the biogas into biomethane which is considered to be a clean and environmentally friendly fuel.While some traits of anaerobic decomposition may not be desirable to every backyard composter, large-scale fermentation efforts see much success, assisting with tasks from water treatment and agricultural waste management to wine and beer production.

Anaerobic decomposition can be practiced at home; Bokashi has been used in Asia for many years. It is a fermented product made with selected micro-organisms that have been impregnated into bran. This mixture anaerobically ferments all food scraps including meat and dairy. There is no biogas or putrid odors. Instead the compost has a sweet or sour pickled odor. Once fermentation is complete, the scraps are added to a

Master Composter Courses
are a unique opportunity to gain a more in-depth understanding of the composting process, and provide insight on sharing this knowledge and passion with others.

Through a combination of hands-on activities and in-class learning, attendees are trained to become composting ambassadors
in their communities.

Graduates play a variety of roles in their communities, including: building compost piles in community gardens, helping students manage
their school worm bins, conducting workshops,
and serving as composting representatives at
community events.

Click here for more information.

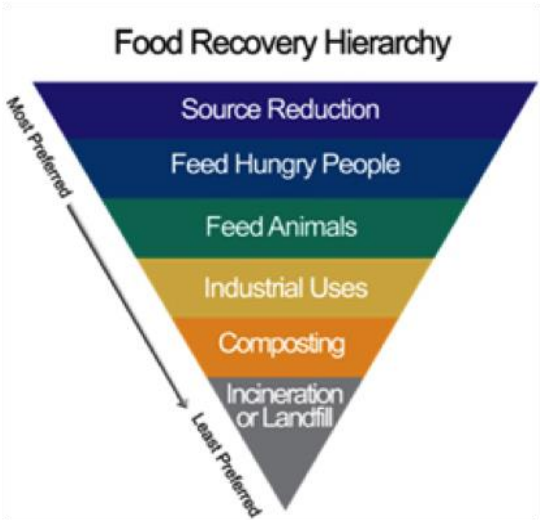
Registration for our Carlsbad course (July 30 - August 27) will be opening soon.

worm bin or buried directly in the soil. The compost is ready to use in 2-4 weeks.

Here are a few examples of anaerobic composting projects currently taking place around the nation:

- A Wisconsin-based company is developing an anaerobic digester slated to convert 500,000 gallons/day of dairy wastewater into biogas that will be used to produce heat energy. Other byproducts? Treated water and a material under study for use as a fertilizer.
- The Eco-Restroom at New York City's Bronx Zoo utilizes composting toilets and fuels an extensive, onsite greywater irrigation system.
- The city of San Jose, CA will soon be home to the first commercial dry fermentation anaerobic digester in the United States. The facility is ultimately designed to process up to 270,000 tons/day of organic material, creating electrical energy and finished compost in the process.

The Food Waste Hierarchy and Why Compost Matters



If you've spent any time visiting the Solana Center lately, you may have heard us talking about the EPA's Food Recovery Hierarchy. As municipal landfills start to fill up with food waste, this inverted pyramid has become an increasingly important tool to educate our community on the steps we can take to better manage food waste.

SPECIAL THANKS TO OUR **DONORS**:

EcoScraps

EDCO Waste and Recycling Services

Lucielle Fischer (In honor of her sister, Amy Moser)

Leland Construction

Nordson Corp.

Qualcomm Foundation

Joie Reavis

Anita Reith

Mary Ann Stone

Judith Walters

Whole Foods Market

Linda Wickstrom & Samuel Chicas

THANK YOU TO **ALL** OF OUR **VOLUNTEERS!**

With an estimated 14.5 percent of American households being categorized as "food insecure" in 2012[1], it's hard to fathom that around 35 million tons of food waste ended up in U.S. landfills and incinerators that same year.[2] Food scraps are the greatest source of municipal waste that ends up in our landfills today. And as all that food waste begins to rot, it produces methane, a potent greenhouse gas with 21 times more global warming potential than carbon dioxide.

Taking a cue from the EPA's Food Recovery Hierarchy, we can begin to reduce the amount of food wasted each year by:

1. **Reducing waste before it's even created**. Some easy ways of reducing food waste include buying only what we need and can use. It might be tempting to buy a full pound of carrots when they're only a bit more expensive than a smaller bag, but unless you can use them all, think twice. If you need to buy in a larger quantity that you can't use, think about sharing with a neighbor or friend. Or think of another dish where you can use them, like a soup stock.
2. **Donate excess food to people in need**. Food banks, soup kitchens and shelters rely on donations to help feed people in need. Maybe you just couldn't pass up that deal for a case of spaghetti sauce, but it's been taking up space in the pantry for months. Rather than regretting that purchase and tossing it out, do some good by donating it to a local shelter.

Click the link below to learn more about the next tiers in the Food Recovery Hierarchy, and what you can do to support the reduction of organic resources in the landfill:

Read on...

VOLUNTEER SPOTLIGHT: Laura Malter

We would like to specifically acknowledge the following volunteers for their support:

Charles Anacker
Marysa Andriola
Sherry Bediman
Tammy Bowser
Dawn Burchman
Carol Gagnon
Carol Graham
Marycie Hagerty
Ashley Lindemann
Beverly Marshall
Angela Morrissey
Anne Peterson
Tricia Pogue
Joshua Saunders
Bradley Shadoan
Curtis Spears
Livvy Stanforth
Tom Waldron
and
Church of Jesus Christ
of the Latter Day Saints-Torrey Pines
YSA Ward

DID WE FORGET YOU?
You must not be in our volunteer database.
We'd like to fix that!
Click here to sign-up.

MANY THANKS
TO OUR **INTERNS!**

Omar Abassy
Brijete Baljian

One might say that for Master Composter Laura Malter, composting and gardening are in her blood, or perhaps more aptly in her roots.

Laura grew up on a farm in Illinois, and although her family didn't actively farm their land themselves, they had a substantial one-acre garden that provided for them all year long. They canned, preserved, pickled, and froze whatever they couldn't eat fresh.

Laura is continuing that tradition. Having re-located to San Diego-- when the implications of our drought-prone climate became clear-- Laura re-did her home landscaping and decided that any plant that required appreciable water should be edible. Her husband and three sons happily concurred as they got to share in the bounty.

With gardening and composting going together like flowers and sunshine, Laura attended the Encinitas Master Composter course in 2011. She is an active composter and maintains both traditional and vermi-compost bins.

Laura embraced her Master Composter volunteering with commitment and enthusiasm, having devoted over 50 hours to her community since she graduated. She has donated her time and expertise to many outreach and educational events, and maintains the large worm bin at the San Diego Botanic Garden. She has represented Solana Center at SDBG's Family Night and will once again put her worms on display in order to help teach children about the worms' wondrous capabilities during the upcoming SDBG Lady Bug event on April 5th. In addition, you will almost always find Laura pitching in on clean-up days at the Manchester Preserve .

Laura is currently enrolled in a 6-month Master Gardener program.

Brenton Du
Syed (Danish) Mansoor
Gloria Ngiyulu
Barbara Perez
Camthao Thi Ho

As one of the many nonprofits participating in ***giveBIG 2014*** *we encourage you to contribute to your favorite charities on*

MAY 6

This 24-hour event is an initiative to increase philanthropic giving in San Diego County.

COMPOSTING QUESTIONS OR CONCERNS?

Call the **ROTLINE**, our composting hotline, where our composting experts will answer your questions.

(760) 436-7986 ext. 222

Our educators are very busy and not always near the phone. Leave us a message, and we'll get back to you within 48 hours.

LEARN MORE AND SPREAD THE WORD!

She and her husband run an educational non-profit, EduCorp Foundation, which involves students though out Southern California in an array of science and engineering projects from mentoring contestants in competitions using underwater robots to designing, creating efficacy metrics, and decorating windmills.

The Solana Center is very fortunate to have someone as talented, energetic and committed as Laura on our team.

A Rottin' Little Quiz II

To quote Margaret Atwood, *"In the spring, at the end of the day, you should smell like dirt."* Agreed. Of course, us composters can proudly attest to wearing aromas of citrus and coffee, as well! Here are a few more brain teasers to enjoy after a day in the garden:

1. A _____ of finished compost contains more microorganisms than there are humans on the planet.

(A) Teaspoon
(B) Tablespoon
(C) Cup
(D) Pint

2. Approximately how many community composting programs were operating in the US in 2011? (Source: EPA)

(A) 1,090
(B) 3,090
(C) 5,090
(D) 8,090

3. What is the function of coelomic fluid- the yellow liquid that worms sometimes secrete?

(A) The fluid is a means of expelling excess liquids
(B) The fluid re-moistens the worm's body in dry conditions
(C) The fluid is a foul-smelling defense mechanism used to ward off predators
(D) Both B and C

4. Which of the following is NOT a recommended strategy to deter rodents from entering a compost bin?

Like us on Facebook

Visit our blog

Find us on Yelp

---

*This newsletter is made possible with the support of the **Cities** of **Carlsbad**, **Encinitas**, and **San Diego**, and the **County of San Diego***

Solana Center
137 N. El Camino Real
Encinitas, California 92024
760-436-7986 ext. 222

compost@solanacenter.org
www.solanacenter.org

(A) Locating the bin away from garbage cans, fruit trees, and stocks of pet food
(B) Routinely capping the pile with thick layers of wood ash
(C) Burying food scraps in the center of the pile
(D) Lining the sides and bottom of the bin with 1/4" or 1/2" wire mesh

5. What is notable about Tardigrades, surprisingly cute micro-animals that reside in your compost bin?

(A) They can survive lethal levels of exposure to radiation and gamma rays.
(B) They can survive without water for up to a decade.
(C) They can survive pressures six times greater than those recorded in the Marianas Trench.
(D) They are the first animals known to survive in the vacuum of outer space.
(E) All of the Above

ANSWERS:
1. A 2. B 3. D 4. B 5. E

Congratulations to our Newest Master Composter Graduates!

Encinitas Master Composter, Class of 2014

Jennifer Boland
Cindy Brandenburg
Dian Cleary
Valerie Counroyer

Solana Center
FOR ENVIRONMENTAL INNOVATION

Tandy Denny
Teresa Lea
Jennifer Leither
Matthew Leitner
Anne Makeig
Ronnie McCord
Karen Montgomery
Judy Osmon
Keith Schneringer
Dawn Standke
Jennifer Telford
Theresa Trost
Letitcia Villarreal
Nathan Woods

Interested in becoming a composting leader in your community? We offer Master Composter courses throughout the year with the support of the cities of Carlsbad, Encinitas, and San Diego and the County of San Diego.

Residents of the supporting jurisdiction are given preferential registration, but the courses are open to all.

Our pending course, offered through the city of San Diego, currently has only wait-list options.

However, we will be opening registration to our Carlsbad course (July 30 - August 27) *very soon!*
Click here to learn more!