



The Composter



THE SOLANA CENTER FOR ENVIRONMENTAL INNOVATION

Summer 2007

Gardening for the Environment

A recent article in the *San Francisco Chronicle* reminds us that there are many simple things home gardeners can do to reduce their impact on the environment. Here are their top ten tips you can pass along when you're talking with people in the community about composting and healthy gardening:

- Buy local
 - Grow your food
 - Shrink your lawn
 - Replace power tools with hand tools
 - Keep garden trimmings and food scraps out of the landfill
 - Compost at home (of course!)
 - Avoid synthetic fertilizers and pesticides
 - Save your seeds
 - Spare your trees
 - Garden for wildlife
- Composting kitchen and yard scraps is an important

step. Organic materials in landfills produce a lot of methane, a more potent greenhouse gas than carbon dioxide. Dave Reay, British climatologist and author of "Climate Change Begins at Home," says an average family's kitchen and garden debris gives off about a ton of greenhouse emissions each year at the landfill.

Composting not only conserves resources but also converts it to free, organic fertilizer, eliminating the need for synthetics. In addition to damaging the environment, synthetic fertilizers are extremely energy-intensive to

produce and transport. Shipping materials from long distances — such as Trinidad and Tobago, Ukraine, Russia, and Venezuela, the United States' leading sources of fertilizers — requires a tremendous amount of fossil fuel.

Consider buying only locally grown food, as well as any other products you may need. Better yet, grow your own food, whether it's just one tomato plant or a whole garden full, and save on all transport costs. Swap seeds with other gardeners, use your compost instead of synthetic fertilizers, and maybe even convert your lawn to a vegetable plot. Check out "Food Not Lawns," by Heather Flores at your local library for ideas, or check out the San Diego Food Not Lawns group (<http://sdfnl.mgayler.com/about.html>).

And in the end, composting is easier and more rewarding if you know what you're doing. If you need a brush up, come to one of our free composting classes; you'll find the schedule on our website: www.solanacenter.org.

Mission Statement
To create a better environment through innovation, leadership, education, and participation.

Solana Center



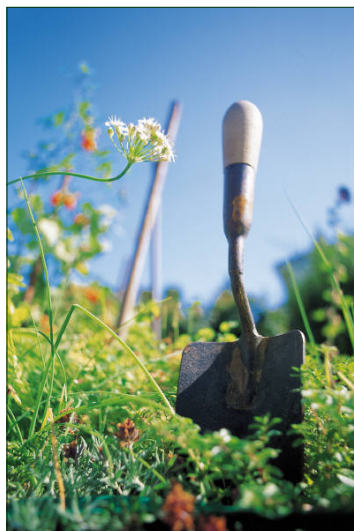
for Environmental Innovation

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"ORGANIC MATERIALS IN LANDFILLS PRODUCE A LOT OF METHANE, A MORE POTENT GREENHOUSE GAS THAN CARBON DIOXIDE."

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Potluck Anyone?

All our volunteers and Master Composters are invited to join in a potluck dinner the first Sunday of every month, 3:00—5:00 pm here at the Solana Center for Environmental Innovation.

Bring a dish to share - we'll meet you in the garden!



Views From the Garden...

The Solana Center's garden is in full bloom!



Clockwise from right: A ripening butternut squash, tasty tomato, garden sunflower, blooming African Irises.



Special thanks to Pete Ash (*above*) and Jenny Van Pelt for their care and tending in the Solana Center garden this season.

What's In My Compost Bin Now?

Although their name comes from an old European superstition wherein these bugs would climb into sleeping people's ears at night, enter and then eat their brains, earwigs are in reality just another harmless insect you will often find living in your compost bin. If you decide to handle an earwig, its menacing-looking forceps may give you a slight pinch. If provoked, it may give off a foul smelling yellowish-brown liquid from its scent glands. But your brain is safe, at least from this critter!

Earwigs love dark, moist areas with lots of decaying material, which makes your compost bin an appealing abode. During dry weather earwigs may seek shelter in your house, looking for cool, moist areas to hide in. However, since they are outdoor dwellers, they will not take up permanent residence in your home. In winter, earwigs can burrow down as deep as six feet below ground to escape freezing temperatures, and they'll remain there until re-

emerging during warmer weather in the spring.

Earwigs cause little or no damage inside the house or in the garden. As omnivores, they are opportunistic eaters, consuming decomposing organic matter, live plants, dead and living insects, sweet, oily or greasy foods, mosses, lichens, algae, fungi, mites, and spiders. Since they feed on aphids, and are considered temporary pests, the minor damage they may do to living plants may just as well be tolerated. During the daytime you will find earwigs hiding in moist, dark places, but as active nighttime hunters, they are drawn then to lights looking for prey. Here the forceps come in handy when capturing their quarry, but they are also used for defense, for probing crevices for food, and for folding and unfolding their wings. Earwigs rarely fly but are rapid runners. However, they will not cover long distances on foot; instead, they are often inadvertently transported on the objects we carry around the gar-

den or into the house.

One of the most interesting earwig facts, which sets these insects apart from most others, is their unique maternal instinct. Female earwigs, regardless of species, care for both their eggs and nymphs. In springtime the females, helped occasionally by the males, build underground brood chambers, or nests, seeking out areas under rocks or mounds of rotting vegetation. Once the nest is built, and before the eggs hatch, the female runs off the male and starts her conscientious mothering. Each egg is turned regularly and cleaned until the nymphs hatch. Once the nymphs arrive the female brings food to the nest until the young are ready to forage on their own.

Welcome the earwig as another interesting and helpful compost tender, and as the nurturing mother insect of your pile!

References: www.ohioline.osu.edu, www.ext.vt.edu, www.earthlife.net/insects, www.amonline.net.au www.bugguide.net

FEMALE EARWIGS, REGARDLESS OF SPECIES, CARE FOR BOTH THEIR EGGS AND NYMPHS.



Harvesting Your Worm Bin

Composting with worms is not only fun, but relatively easy to do as well. The tricky part can be figuring out how to separate the worms from the finished compost when you are ready to incorporate it into your garden. Most vermicomposters begin to accumulate rich vermicompost within the first few months of the practice. Whether you decide to harvest at this time, or wait until your bin is chock-full, these simple methods can help to make your harvesting experience successful, trouble-free, and exciting!

Method #1: “Divide and Dump”

The top 1/3 of your worm bin will most likely contain bedding, uneaten food scraps, and the bulk of your worm population. Remove this material and use it to start a new bin. The remaining 2/3 of the worm bin’s contents will be mostly compost, with a few worms in the mix. Use this material as compost and apply it directly to your garden. Since composting-worms do not survive for very long outside of the worm-bin environment, the few left inside the compost will unfortunately be sacrificed. However, if you are looking for an easy harvesting method and are not upset about sacrificing a few worms, then “Divide and Dump” is probably the right way to go.

Method #2: “Self-Sorting”

Another easy harvesting method involves letting the worms do most of the work! Start by pushing all of the finished material to one side

of your worm bin. Add fresh bedding and fresh, tasty food to the vacant side. Since worms are voracious eaters, they will migrate to where the food is, leaving the finished compost behind. This method is low-maintenance, but it takes a bit more time. But if you are not in any hurry and long for rich worm castings without the worms, then the “Self-Sorting” harvesting method is for you.

Some manufactured bins employ an effective variation of this method by using tiered trays with holes in the bottom. When your top tray is ready to harvest, simply place a fresh tray on top (with fresh food and bedding) and the worms will migrate vertically to the top layer, leaving their compost behind in the second tier.

Method #3: “Hand-Sort”

This is the most hands-on of the three methods; however it is possibly the most effective in keeping all of your worms for future use and retrieving compost with an even-consistency. Start by spreading a large tarp or sheet of plastic out on a flat surface (a large table-top or the ground usually works well). After removing the large chunks of uneaten food from your bin, dump the contents out onto the tarp. Make a series of small cone-shaped piles out of the compost. Leave the piles alone in the sun or under a bright light for about 10-15 minutes. Since worms are extremely sensitive to light, they will crawl to the very bottom of the piles, making it relatively



Hand-Sorting (clockwise from top-left): Preparing a space; sorting the castings into small piles; waiting...; collecting the harvested castings!



easy for you to scoop the worm-free finished compost off the top of each pile. Repeat this process several times until you are left with only worms!

Vermicompost is some of the best compost you can find. With 6 times the nitrogen of regular soil, and natural insecticidal properties, there’s no doubt that you’ll be happy with the quality of soil you have produced within your worm bin. So choose a harvesting method that’s right for you and dig in! Also, remember that a large part of composting involves experimentation; let us know of alternative harvesting methods you have discovered!

Ready for action! (below): After harvesting, these red wigglers are ready to go for the next round of composting!



Sources: Mary Appelhof, *Worms Eat My Garbage*; http://www.compostsantacruzcounty.org/Home_Composting/Worm_Composting/worm_harvest_soil.htm

Quick Pics



Reaching Out (above): Master Composter Jose Amular, talks to visitors about home composting at the 2007 San Diego County Fair.



Master Composters in Training (left): David Rick and Flip McCarthy learn the art of creating a homemade worm bin at the San Diego Master Composter Course in May, 2007.

Thank you to the following Master Composters for volunteering this quarter. . . teaching workshops, staffing outreach booths, maintaining compost demonstration sites, planning master composter training courses, selling compost bins, building and monitoring school worm bins, and responding to Rotline inquiries.

Jim Carleton
Rachel Borgotti
Jose Amular
Flip McCarthy
Diane Hollister
Whitney Dueñez
Georgia Nally
Dan Kuhn
Sunsoon Doucet
Nora Klynjan
Ellen Gadegaard
Natalie Nucci
Jim Renn
Shel Barkan
Jean Scherschel
Brad Kroeger
Bob Ollerton
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Paul Taylor
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Upcoming Events

Fall 2007 Encinitas Master Composter Training Course

Sponsored by the City of Encinitas, this 5-week course trains participants in the art and science of composting and how to teach these skills to others.

Upon completion of the course, master composters volunteer 30 hours in the community. Tell your friends and neighbors about this great chance to help the environment. Registration required.

Five Mondays
September 10 – October 8
6:00 – 8:30 pm
\$30 materials fee
(payable at first class)

Quail Botanical Gardens
230 Quail Gardens Dr
Encinitas, CA 92024
To register, visit
www.solanacenter.org
Or contact Tanya,
760-436-7986 x225

California-Friendly Gardening Festival & Plant Sale

Join the fun — come out and talk with people about composting and give composting demonstrations during the Water Conservation Garden's annual California-Friendly Gardening Festival and plant sale. We'll be selling low-cost compost bins at our booth, which is sponsored by the County of San Diego. To volunteer, contact Tanya, 760-436-7986 x225.

Saturday, October 27
9:00 am—3:00 pm
Water Conservation Garden
12122 Cuyamaca College Dr.
West
El Cajon, CA 92019
www.thegarden.org

The Composter is published quarterly by The Solana Center for Environmental Innovation, a nonprofit organization, to inform Master Composters about current volunteer opportunities, innovative technologies, and upcoming events.

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