Vermicomposting



How to use worms to recycle your food waste

Jefferson School Sustainability Workshop

April 19th, 2012

Hosted by Westside Community Improvement Association, in conjunction with Humboldt State University ENGR 305

Troubleshooting

Problem	Solution
	If they are too dry
If all your worms	water the bin
diethen either	lightly.
they are too hot or	If they are too hot
too dry	add fewer food
	scraps at a time.
If the flies seem to	Add a thin cover of
swarm	ash or soil
If the bin smells	Add more bedding,
putridit is too wet	and leave out the
(anaerobic)	really wet scraps.
If the worms eat to	
slowlythen either	Add more bedding and less food.
the material is too	
dense or there are	
too few worms.	

Additional Resources

www.working-worms.com

http://www.appropedia.org/Jefferson_Community_ Center_E305_teach-in

http://www.appropedia.org/Vermicomposting

Why compost?

- Worms process food waste into a nutrient rich soil amendment on the planet.
- The worms eat your waste and excrete castings that you can use on your plants!
- You can recycle food scraps into food you can grow and eat!
- Over 25% of food produced in the United States is wasted:
 - This uses 4% of our domestic petroleum.
 - This uses 25% of our water usage.
- More nutritious soil=more nutritious vegetables
- o Growing your own food is cheaper.

In summary:

Lower your food bill!
Lower your trash bill!
Lower your carbon
footprint!
Increase your health!

Materials needed for a small-scale vermicomposting system:

- Two or three nesting buckets (with 1 or 2 lids if available)
- o Something to drill holes with
- o Red worms with a little compost
- Bedding (carbon based scraps such as egg cartons, newspaper or old telephone books)
- o Risers (bricks, cork, tile, rocks)
- Food scraps
- o Landscape cloth, if you don't have lids

How to Set Up the Bin

- 1. Shred and moisten bedding.
- 2. Drill holes (<1/4inch) all along the bottom of the top (two) bucket(s) and also around their rim(s) for ventilation.
- 3. Ring out the bedding. Line the bottom of the top bucket with moistened bedding.
- 4. Place the worms (~100 count) and compost (or soil) in one side of the top bucket. Cover them with another layer of bedding.

5. Once they have become acclimated (usually 1-2 days) then lift up the top layer and feed them a handful of scraps.

What can I feed my worms?

YES	NO
Fruit and vegetable scraps (Chop up or crush stems and large pieces of tough vegetables)	Meat Products
Paper and cardboard	Dairy Products
Egg shells (crushed)	Bones
Yard clippings (including grass and leaves)	Fats, Oils, and Grease
Coffee grounds and tea bags	Onions
Animal hair	Garlic
Grain products	Citrus

NOW WHAT?

- o The general idea is that these red worms migrate upwards towards food sources. Therefore, if you are using a three-bin system and are ready to empty the middle bucket of the nutrient rich castings, you can do this and then place it on top on the bucket that was on top. Once the worms sense that the food source has moved, they will follow. Meanwhile, your compost tea can also be emptied from the bottom bucket.
- If you are using a two-bucket system, the tea and castings will be mixed in the bottom bucket. Make sure to keep the food covered with bedding and the top covered to keep out pests.
- o In two to three months, your worms might mate. Their eggs look like birds eggs the size of a large grain of sand. About seven weeks later 7-15 baby worms may hatch from *each* egg! Once they reach maturity, you can start a new system or pass it on to your friends and neighbors!