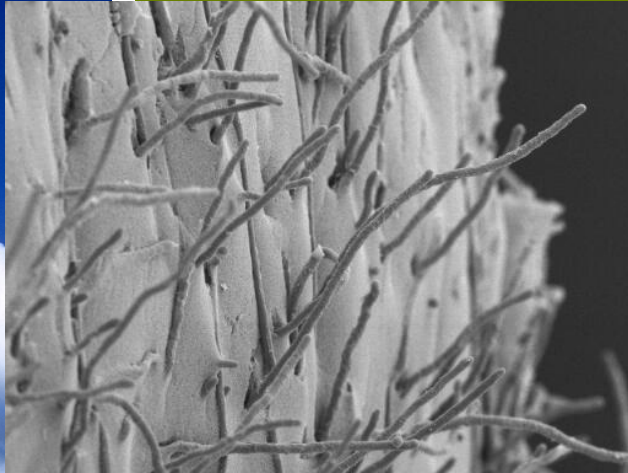
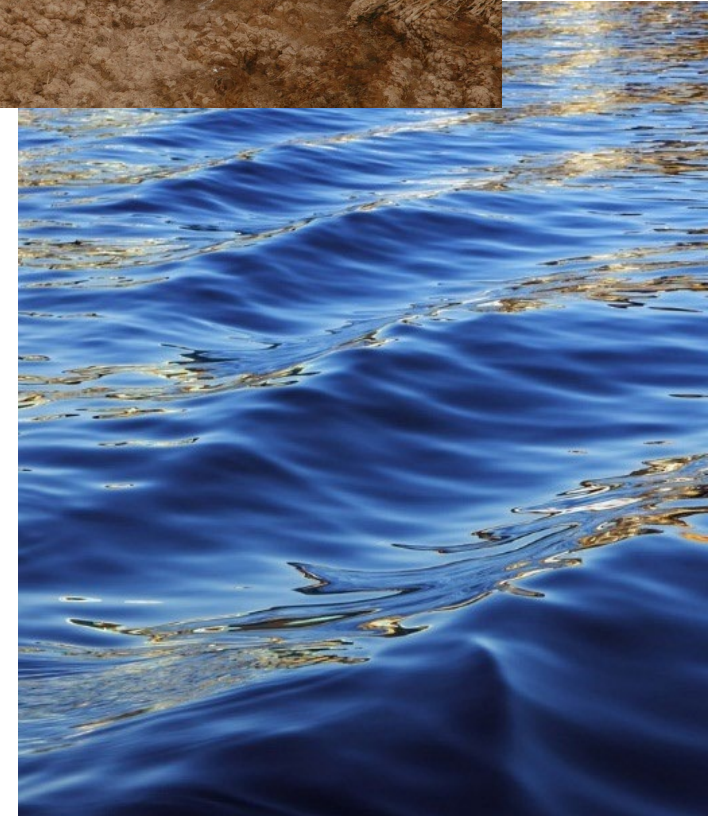


# Rot Happens!



*Created by  
Kristena LaMar  
Master Recycler*

Presented by  
Rick Winterhalter  
Clackamas County



## COMPOSTING IN A NUTSHELL:

Composting is just one species digesting another species.



It is a dog-eat-dog world out there.

# COMPOSTING: Nature's oldest form of recycling

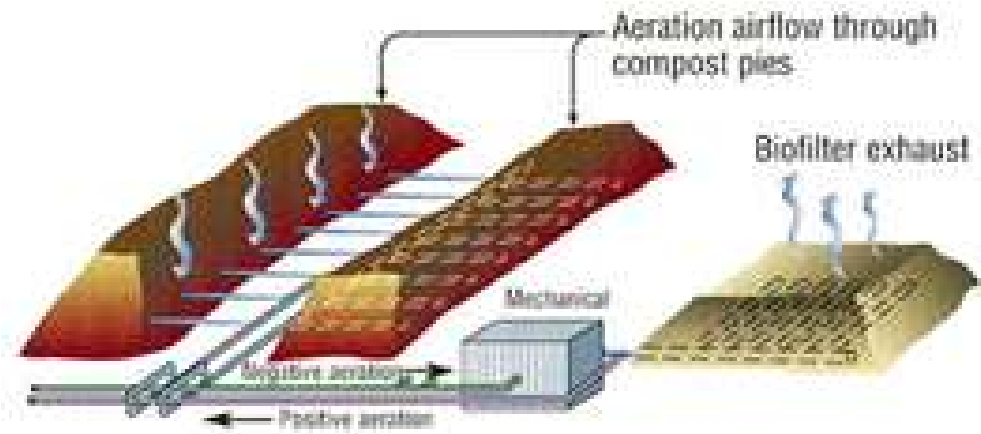
- **What?** A human system mimicking nature.
- **Why?** A beneficial means of breaking down organic structures so that they can be reused for new living organisms.
- **How?** Necessary requirements speed the process and reduce problems.

# Composting opportunities:

- Curbside pickup composting: organic matter is transported to a commercial composting center, and then sold to the public. Rules vary.



# Aerated Static Pile

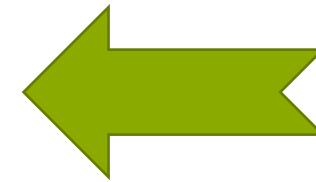






# Home Made Composting opportunities:

- “Home made” composting: using materials already at hand in most households and gardens.





# THE FOUR NECESSITIES OF COMPOSTING

**Browns**

**Greens**

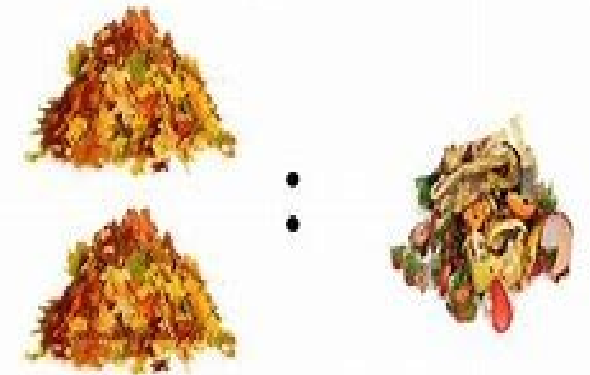
**Air**

**Water**



Carbon vs. Nitrogen

Compost Ratio



2 parts **BROWN** to 1 part **GREEN**

# WHAT NOT TO ADD?



**MEAT AND BONES**

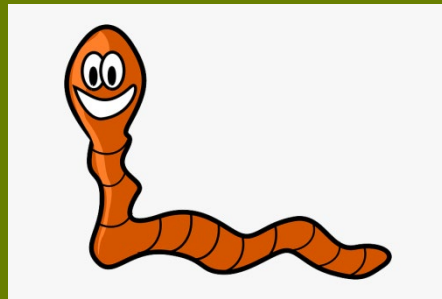
**DAIRY AND CHEESE**

**OILS AND FAT**

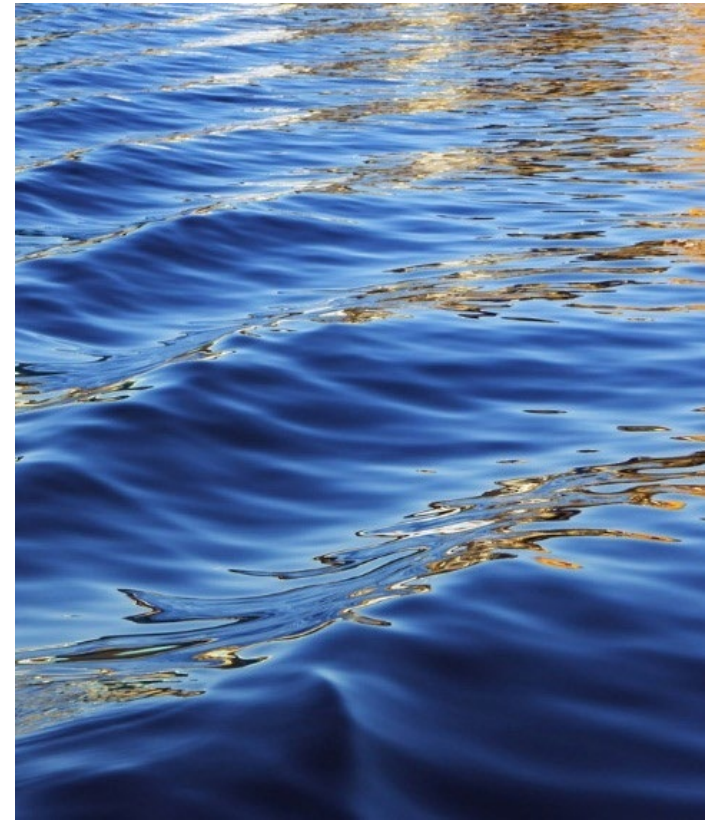
**ANIMAL FECES**

# VERMICOMPOSTING:

Let the



do the work.



# WHY BOTHER?

- **Worm castings contain more microorganisms, more inorganic minerals, more organic matter, in a form more readily available to plants.....than is contained in soil itself!**
- **The “worm tea” that drains to the container bottom can be used as a liquid fertilizer (primarily nitrogen).**
- **It’s free!**



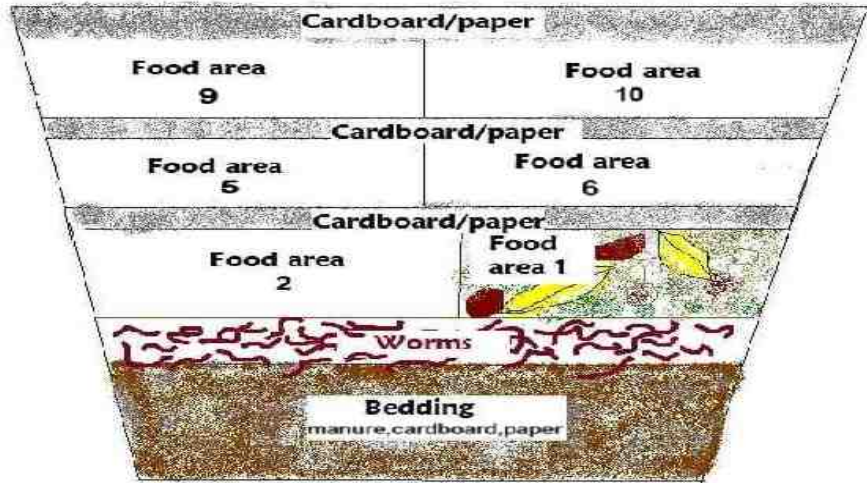
# NOT JUST ANY OLD WORMS



- *Eisenia fetida*, or red wiggler worms are the best for composting.
- “Fetid” refers to the odorous fluid they secrete as a protective device against predators.
- Each worm is hermaphroditic, so contains the sexual organs of both sexes. Under the right conditions, they can live 1 to 5 years, producing eggs throughout.
- They need temperatures between 40 and 70.
- They breathe through their skin, so must be in a moist environment.
- They are blind, so bright light is painful to them.
- Like chickens, they have gizzards to break food down.

sierra-worm-compost.com

### Small Worm Bin Cross-Section



The container isn't as important as air, water, food and "nesting" materials.

# RECOMMENDATIONS FOR WORM BIN “FOOD”

- Fruit and vegetable scraps and some peelings.
- Pulverized eggshells (or other sources of grit). These should be ground or pulverized, and they also provide calcium.
- Coffee grounds, filters, and tea bags-- with staples and strings removed. You can mix them into the worm bin at any time.
- Plain cereal, bread, and pasta. Use small amounts only, as they tend to clump up. Be sure to wet them first.



# WHAT TO LEAVE OUT OF WORM COMPOSTING CONTAINERS



- Meat, poultry, or fish (bones, skin, or Drippings).
- Oils (such as butter, salad dressing, or mayonnaise).
- Dairy products.
- Highly acidic or spicy foods, such as citrus (especially peels) or onions.



# PROBLEMS TO WATCH OUT FOR



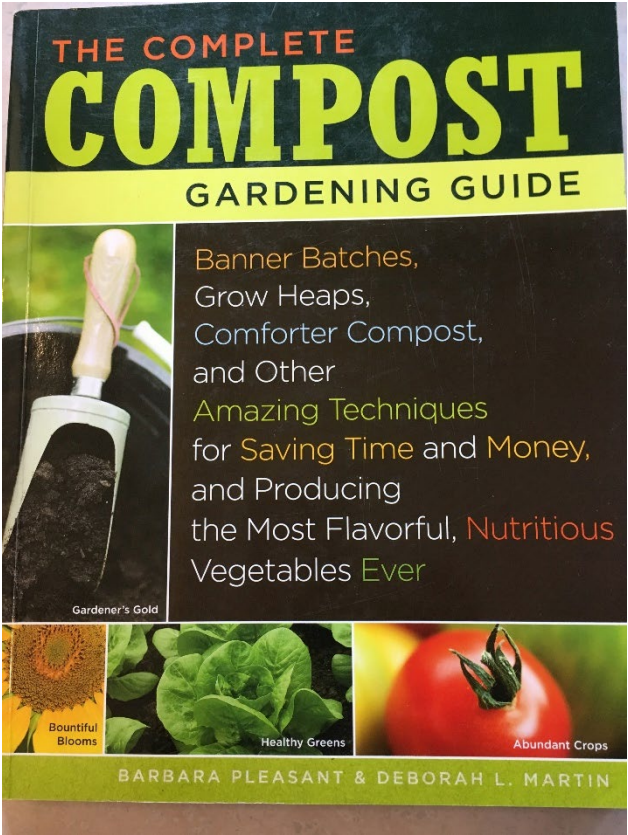
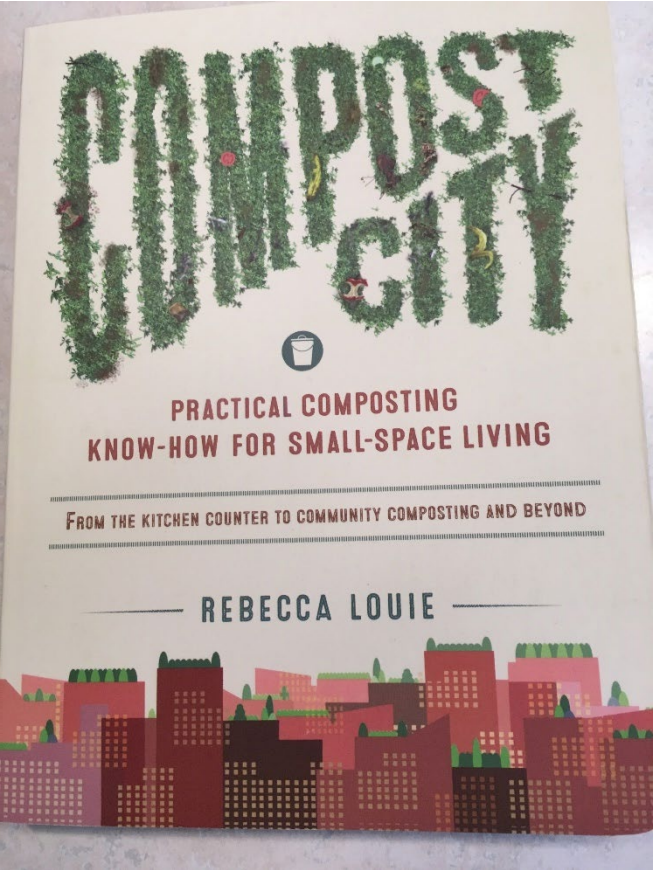
- Molds.
- Rodents.
- Slugs. (Although these are also valuable composters.)
- Food, bedding and worms drying out.
- Running out of food and/or putting in so much it molds before composting occurs.
- An overabundance of castings. Separate the worms from their poop at least every other month.
- But don't worry about springtails.



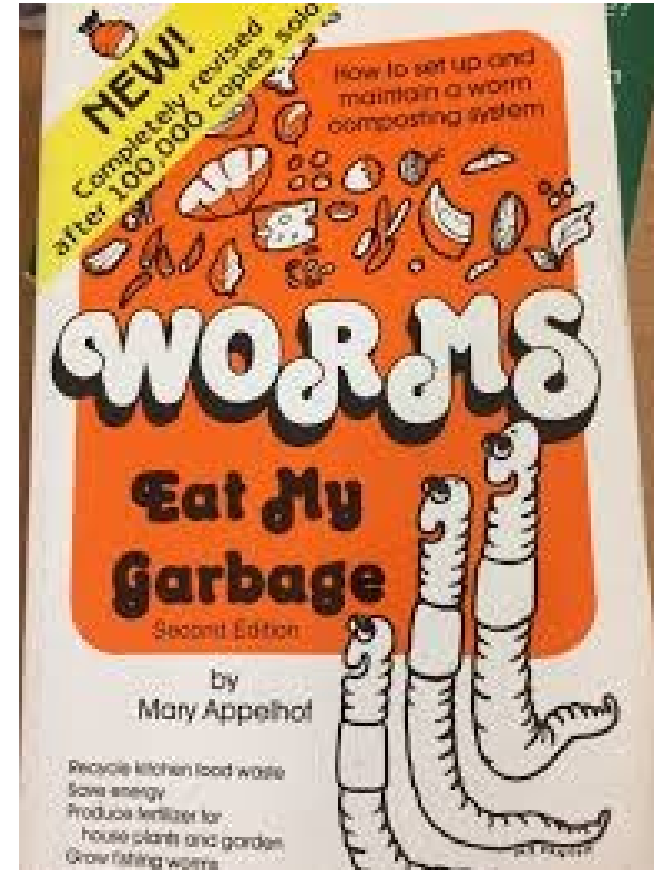
# SEPARATING WORMS FROM CASTINGS



# ADDITIONAL RESOURCES FOR COMPOSTING



# ADDITIONAL RESOURCES FOR WORM COMPOSTING



and OSU Publication EM9034

**Composting was  
Mother Nature's  
first—and  
perhaps, most  
important—form  
of recycling.  
And she expects  
you to carry it on.**

