



An Introduction to Composting

Who am I and Why am I Delivering This Training?



- I am NOT an expert, but I have some experience.
- I want to dispel some common excuses
- I want to encourage better use of “waste”



What is Composting?

- “**Composting** is the purposeful biodegradation of organic matter, such as yard and food waste. “ – Wikipedia
- Composting produces a dark, flaky, soil-like material

Benefits of Composting

- Reduces amount entering waste stream (there are aprox. 7,000 landfills in the US)



- Creates useful soil amendment
- Reduces water treatment, water consumption, and electricity from use of garbage disposals



Composting Terminology



- Greens: Items rich in nitrogen
- Browns: Items rich in carbon
- “Hot” Composting: Actively managed compost that stays hot throughout the compost process
- “Cold” Composting: Unmanaged compost that usually stays fairly cool
- Compost: The finished product of a compost pile.

Types of Composting

- “Cold” Composting



- “Hot” Composting



- Vermicomposting



“Cold” Composting



- The easiest method
- Compost materials are piled up in layers
- Uses a mixture of greens and browns
- Material breaks down in about a year
- Works best if you don't need the compost quickly and if you don't want to put much effort into composting

“Cold” Composting cont’d

1. Start with a small pile of browns (leaves work well)
2. Add greens to the pile when you have some
3. Layer an equal amount of browns on top of the greens. This will suppress any odors to avoid attracting pests
4. After 12 months, move the top layers and collect finished compost from the bottom of the pile

“Hot” Composting

- Fairly active method of composting
- Equal amounts of greens and browns are added and mixed on a regular basis
- Relies on thermophilic, aerobic bacteria to decompose materials
- Can produce compost in 2-3 months



“Hot” Composting cont’d

1. Start with a pile of browns (leaves work well)
2. Add greens and browns in equal parts
3. Turn the pile about once a week
4. To allow compost to finish, don’t add new items to the pile, but keep turning on a regular basis. This requires more than one compost pile.



Vermicomposting

- Fairly simple method of composting, but requires some additional equipment
- Uses red wiggler worms to consume kitchen waste. The “worm castings” are the compost
- Quickly produces compost – about 6 weeks
- EXCELLENT method for composting small amounts of waste or if you don’t have much space

Vermicomposting cont'd



1. Put damp (not wet) worm bedding (sawdust, dried leaves, shredded newspaper, etc.) in a bin (can be homemade, but must have air holes) until the bin is $\frac{3}{4}$ full.
2. Place worms (redworms) on bedding (they'll wiggle into the bedding themselves). You need about 2lbs worms per 1lb of daily food waste.
3. Add food scraps to bin daily. Scraps should be buried in the bedding.
4. Once you're ready to harvest compost, move worm castings to one side and add new damp bedding to the other side. Worms will move over on their own leaving compost for you to harvest.



Vermicomposting cont'd

- Special Considerations
 - Accounting for leachate: have holes in the bottom and a container underneath to catch the leachate. This makes a good compost tea. This also helps keep the compost from getting too wet.
 - Bins can be made from plastic or wood. Plastic doesn't absorb the leachate like wood will, so that may be a deciding factor.
 - Worms will usually have to be ordered from a worm farm.
 - Worms can't survive temperatures outside 40-80 deg F. This means they usually have to be kept indoors.

Equipment

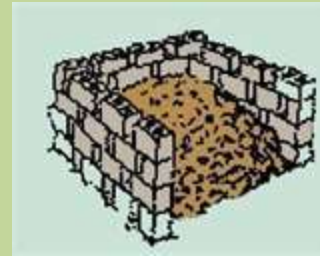
- “Cold” Composting

- Shovel (Required)
- Enclosure (Optional)



- “Hot” Composting

- Shovel/Turning Fork (Required)
- Enclosure (Optional)
- Compost Tumbler (Optional)



- Vermicomposting

- Worms (Required)
- Container (Required)
- Bedding (Required)



What Can I Compost?



- **Greens**

- Grass Clippings
- Manure
- Vegetable Scraps
- Other Plant Based Material except oils (e.g. pasta, flour, bread)
- Egg Shells

- **Browns**

- Paper WITHOUT Colored Ink (this includes cardboard)
- Leaves
- Wood Shavings / Sawdust (from untreated wood only)

What Shouldn't I Compost?

- Meat (smell)
- Dairy Products (smell)
- High Fat Items (smell)
- Diseased Plants (disease transfer)
- Pet Feces (Specifically Dog or Cat) (bacteria)
- Paper with colored ink (unless it's soy based)



Compost Troubleshooting

- My Compost Stinks!
 - Pile is too wet. Add some dry browns and expose pile to the air to increase evaporation.
 - Too many greens in the pile. Add some browns to even out the green:brown ratio
- My Compost Pile isn't Shrinking/Breaking Down
 - Not enough moisture. Water it a little.
 - Too many browns. Add some greens to even out the ratio

Compost Troubleshooting



- I Have Bugs in My Compost Pile
 - This is normal. If you are cold composting, don't worry about it. If you are hot composting, then your pile is too cold. Bugs shouldn't be comfortable in there when it's at the right temp.
- I have pets/pests getting into the compost pile
 - Build a better enclosure for the compost pile or use a compost tumbler.
 - Bury any kitchen scraps in the pile and cover them to prevent smells that would attract pests.

Questions, Comments?