



From Garbage to Garden

It's Compost Time!

Backyard Composting
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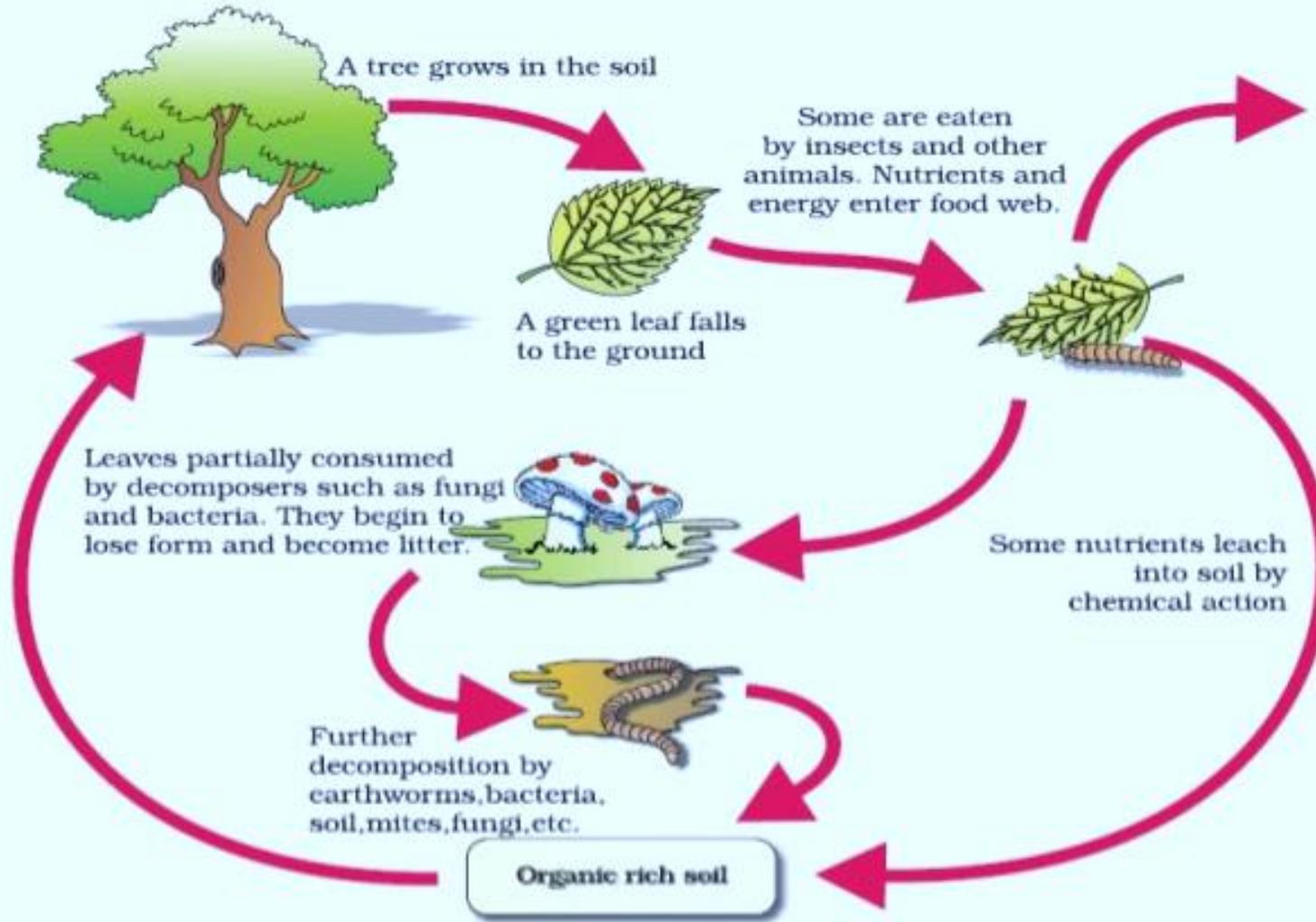


**Vermont
Master
Composter**



What is composting?

Dictionary.com: A mixture of decayed organic matter used to fertilize soil.

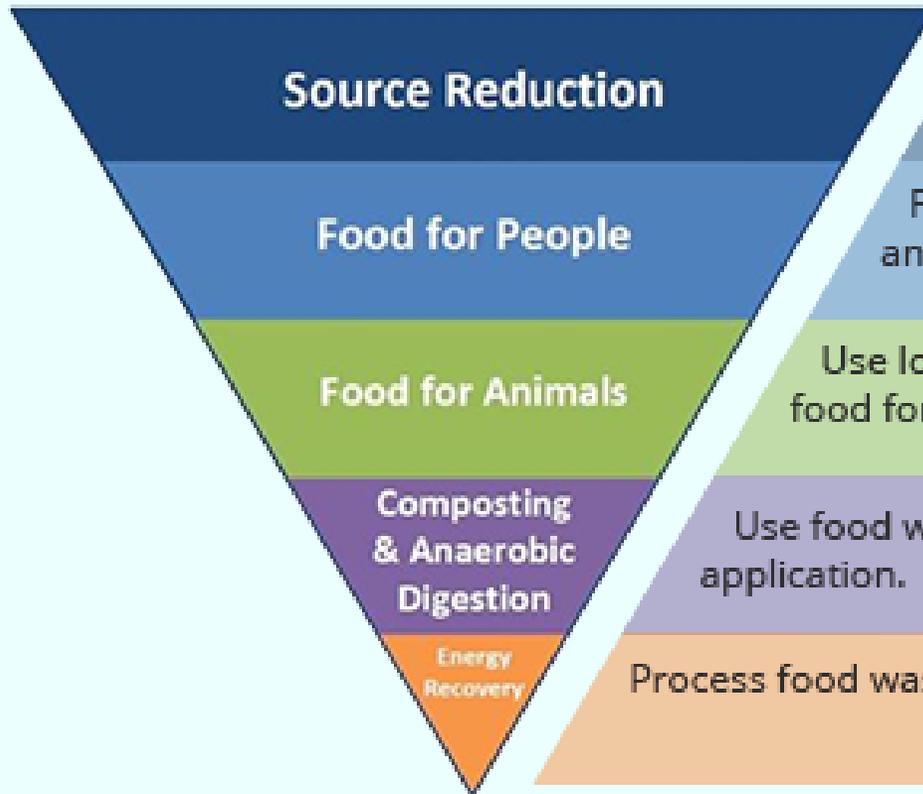


All organic materials will go through the process of decomposition.

When we manage this process to harvest nutrients for later use, its called composting.

VT's Universal Recycling and Composting law Act 148

VERMONT FOOD RECOVERY HIERARCHY



TRANSLATION

Reduce the amount of food scraps & residuals (i.e. leftovers) being generated in the first place - shop with a list, strategically plan meals, etc.

Feed people by giving high quality food to food shelves and other organizations with similar strategies.

Use lower quality food waste for agricultural uses, such as food for animals.*

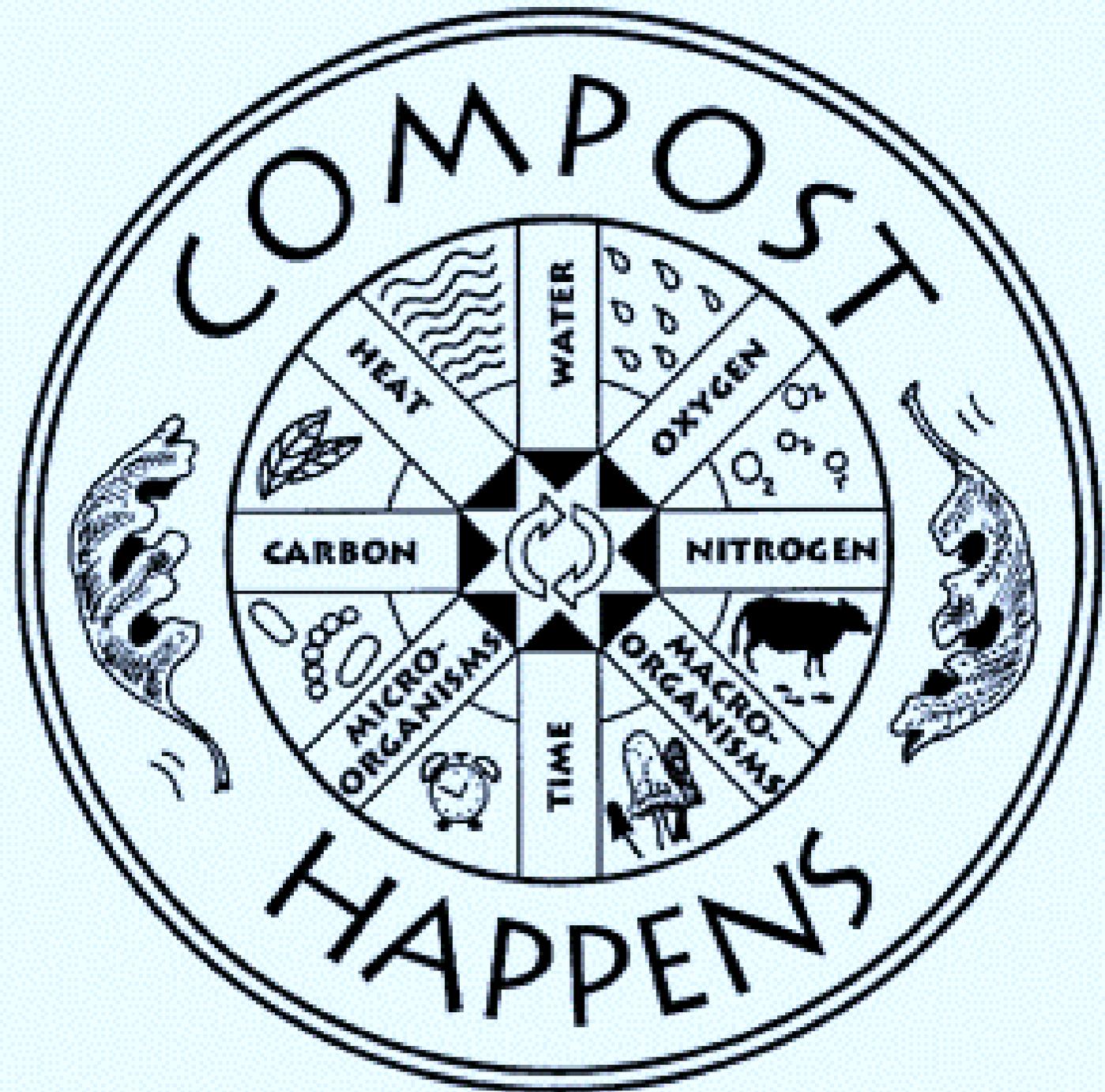
Use food waste in compost, anaerobic digestion, and land application.

Process food waste for energy recovery.

*See the Vermont Agency of Agriculture's *Swine Feeding Policy* before feeding scraps to pigs.

Today we will discuss how to:

- * choose the ideal set-up for your compost production,
- * build and maintain a productive compost pile, aka perfect your recipe,
- * troubleshoot problems that may arise.



Compost piles

Share your stories...

- What type of compost system do you use?
- What materials do you compost?
- What methods do you use for maintenance?



Compost Recipe 101

Say “YES!” to these items:

Greens (Nitrogen)

- Food scraps
- Vegetable scraps
- Fruit wastes
- Coffee grounds
- Tea bags/leaves
- Fresh grass clippings
- Other garden waste (plants, stalks, flowers)
- Chicken/livestock manure
- Corn husks
- Stale/moldy bread



Browns (Carbon)

- Leaves
- Shredded straw, hay
- Sawdust
- Woody chips & twigs
- Shredded newspaper
- Nut shells
- Corn stalks and cobs
- Brown paper bags
- TP & paper towel rolls
- Crushed eggshells
- Cereal boxes
- Ashes from wood
- String/cotton thread
- Wool



And “NO!” to these:

Prohibited Items

- Meat
- Fish
- Poultry
- Bones
- Milk products
- Oil
- Pet manures
- Weed seeds
- Diseased/insect infested plants
- Glossy paper
- Anything with harsh chemicals



Composting Recipe cont.

Aka - What's the Deal with Carbon and Nitrogen? (and other points)

Carbon : Nitrogen ratio –

Ideal is 30 : 1

Approx. 2 parts green material (N) : 1 part brown material (C) **by volume.**

Carbon

is the building block of all cells, including bacterial cells.

Nitrogen

is necessary for building proteins and enzymes.

Moisture levels should be that of a wrung-out sponge, 50-60%.

Particle size of ingredients can help or hinder air flow.

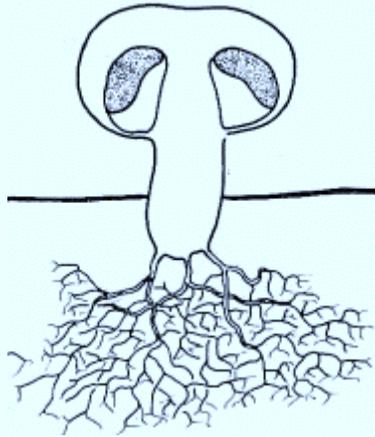
Why the compost recipe matters: Decomposers do all the work!



Bacteria

Different types depending on temp of compost pile (thermophilic or mesophilic)

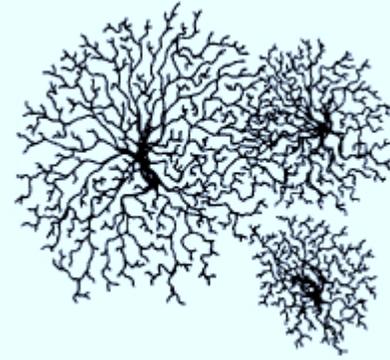
If pile becomes anaerobic, bacteria produce methane.



Fungi

Fungi breaks down woody materials.

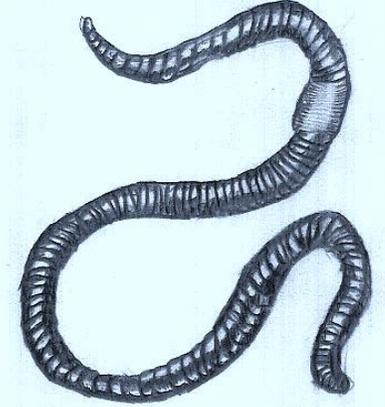
Important component of final stages of compost.



Actinomycetes

Bacteria creates visible grey stands in compost, produces sweet smell.

Vital component of cool compost systems, produce antibiotics.



Worms

Active only in cool compost systems, promote aeration of pile.

Worm castings add nutrients to pile.

Hot vs. Cool Compost

The microorganisms present in your pile depends on it's temperature, and its temperature is based on the pile's size.

Hot Compost

Larger Pile Size (At least 1m³)

Accepts Meat, Bones, Dairy

Must turn pile often

*Fast Process – Creates Compost
in only 6 mo.*

Cold Compost

Small Pile Size

*Does not get hot enough to speed
decomposition of Meat, Bones, Dairy*

Less Maintenance Required

*Slower Process – Creates Compost in
1 year.*

Dispelling Common Myths

Myth	Fact
Compost piles are hard to maintain and must be turned often.	Turning your pile ensures fast decomposition, but there are other methods of adding air fresh air, like “lasagna” layering woody debris after food waste.
I have to add water to my compost pile.	Moisture from fruits&vegetables, coffee grounds, and other food scraps is often enough to maintain enough moisture.
It is important to add “compost starter” to my pile.	Compost starter is not necessary. Essential organisms like bacteria and worms will find their way to your pile from the surrounding environment.
Compost piles smell bad.	Composts smell bad when your recipe is missing something. Is there too much water? Too little brown material? Balancing your recipe will stop any smell!
Amendments must be added to pile to enrich it with nutrients.	Nutrients from decomposing organic matter are all your compost pile needs to be a valuable soil amendment!