

Composting 101

Coral Springs Community
Garden



What Is Compost?

- Compost is the when once-living materials come together to make a new substance that helps living plants grow.
- Composting is the managed aerobic process of recycling organic waste such as food scraps, leaves, and yard trimmings- into nutrient rich, soil -like fertilizer often called “black gold”
- Unlike fertilizers, compost slowly releases nutrients into the garden where earthworms and other soil biology make the nutrients available to plants.



Anaerobic Composting

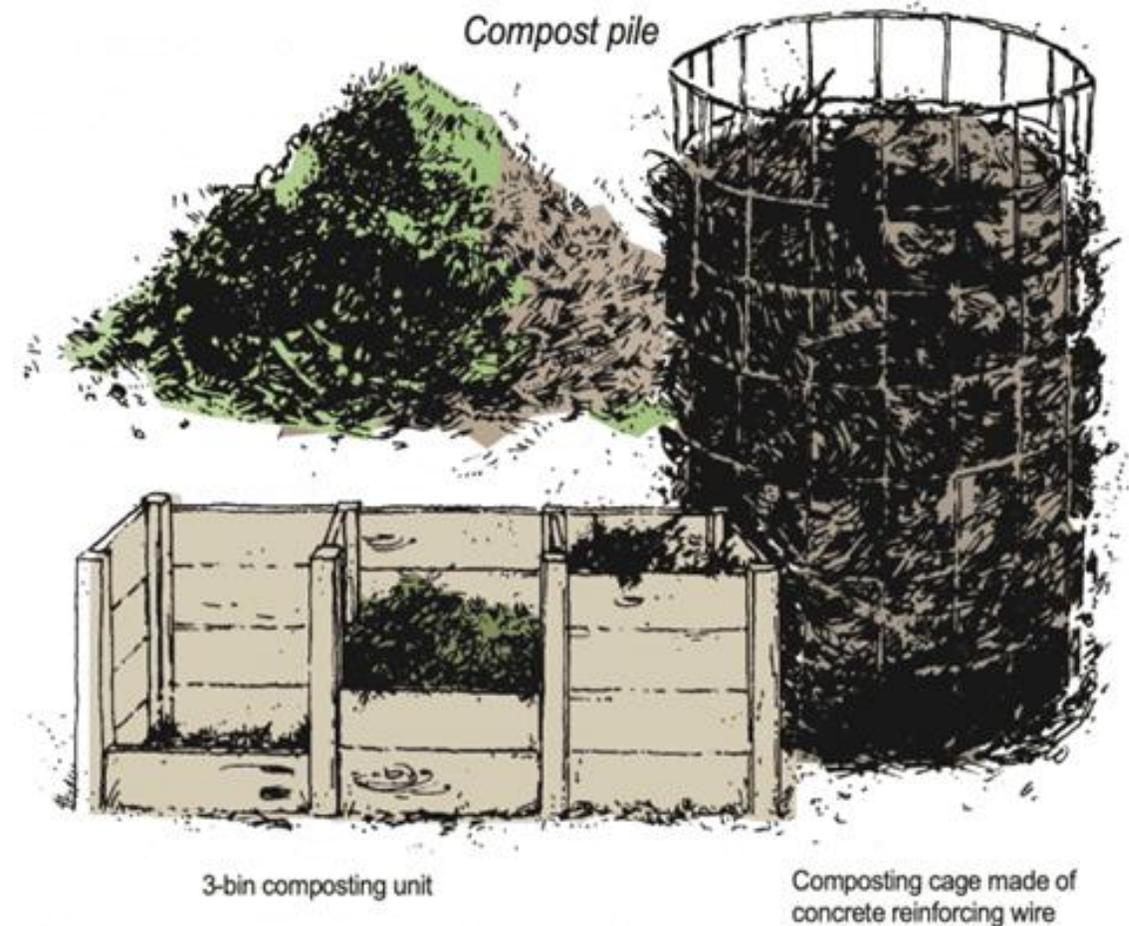


In **Anaerobic** composting,

- The organic matter is decomposed in the absence of air (without oxygen)
- Material is collected in pits or trenches
- It is piled up and covered with a thick layer of soil and left undisturbed for six to eight months.
- This very slow method is otherwise known as a landfill

Aerobic Composting

- Aerobic composting is the process by which organic wastes are converted into compost or manure using air.
- It takes 2-3 weeks to 3 months to produce nutrient-rich, low odor humus
- This requires regular turning or aeration
- Uses the Heap Method of piling organic matter in layers of carbon-rich “browns” and nitrogen rich “greens”



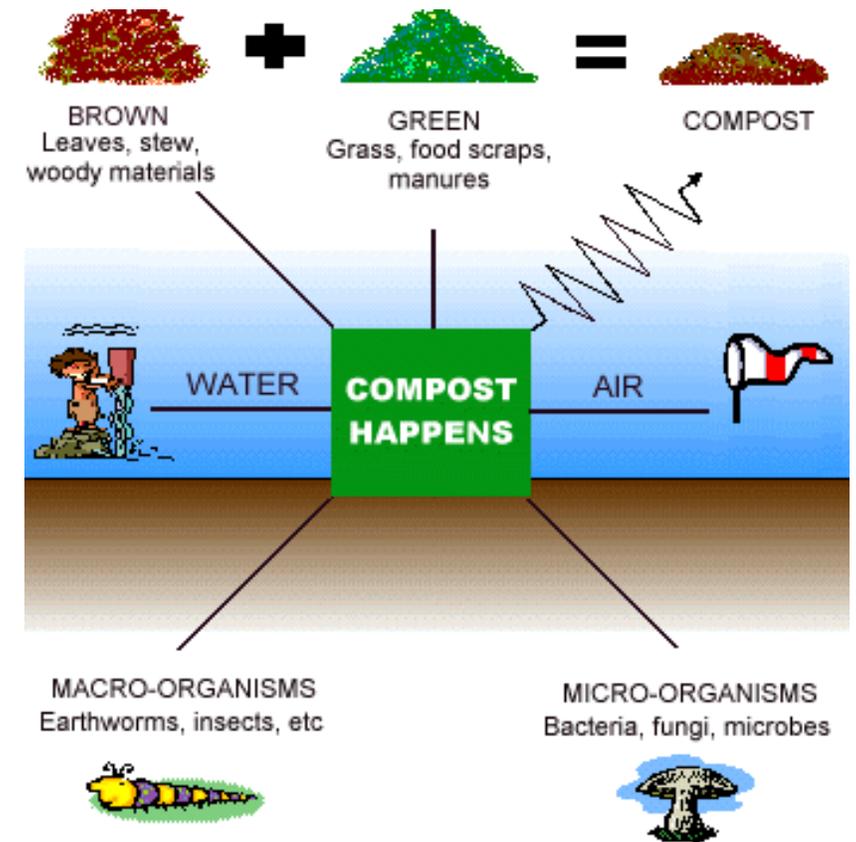
Vermicomposting

- Vermicomposting involves the use of earthworms as a natural and versatile bioreactor for the process of conversion.
- This is carried out in specially designed bins.
- Vermicomposting:
 - Is a completely odorless process making.
 - Has an extremely high rate of conversion
 - Produces high quality fertilizer
 - Produces an end-product can be dried and stored safely.



The Process of Composting

- The only ingredients necessary for a successful compost are air, water, green material, and brown material.
- Oxygen powered by the microorganisms such as bacteria, fungi, break down the organic matter by digesting it.
- Overtime secretions from the soil organism result in a crumbly fragrant humus.
- Composting is a complex interaction between the waste and the microorganisms within the waste.





Benefits of Composting

- Creates a natural fertilizer
- Improves soil structure
- Reduces the need for chemical fertilizers
- Lowers greenhouse gas emissions from landfills

What To Compost

Greens (Nitrogen)

- Grass/garden clippings
 - Coffee grounds
 - Tea bags/leaves
 - Juice pulp
 - Egg shells
- Clippings from pruning
- Fruit/vegetable scraps from the kitchen

Browns (Carbon)

- Dry leaves
- Wood, bark shavings, and twigs
 - Sawdust/wood ashes
 - Nuts and nutshells
 - Potting soil
 - Straw
- Shredded brown cardboard
 - Dead houseplants

What Not To Add In A Compost

You should never put the following items into your compost:

- Bones
- Whole Eggs
 - Dairy
 - Fat
- Leftovers
- Diseased Plant Materials
 - Meat Scraps
 - Pet Waste



Step-by Step Instructions

1

Build the Base

Start with a layer of coarse, woody brown materials (twigs, small branches) at bottom to ensure proper air circulation.

2

Layer Up

Alternate layers of brown and green materials. A common approach is a 6-8inch layer of browns followed by a 2-inch layer of greens.

3

Add Activators

(Optional): A few shovelfuls of garden soil or finished compost introduces beneficial microorganisms to kickstart the process.

4

Moisten:

Water the pile as you build it to achieve the moisture level of a damp sponge, **not soaking wet**, but consistently moist.

Instructions Cont'd

5. Maintain and Mix

- **Cover** the pile with a lid or tarp to help insulate it and regulate moisture.
- **Turn** the compost regularly (weekly is great, but every few weeks works) to introduce oxygen, which speeds up decomposition.
 - **Bury** any new kitchen scraps in the center of the pile to deter pests.
- **Chop materials into smaller pieces** to increase their surface area and speed up the process.

A well-maintained pile, **“hot” pile** can produce finished compost in as little as two to three months, while a “lazy” {cold} pile can take anywhere from six months to a year.

One GOLDEN RULE to keeping your compost pile well managed;
Always cover your food scraps with dry leaves, wood chips or leaves.

Troubleshooting

If the pile is smelly, it likely has too much nitrogen (**greens**)

If it is too wet/compacted, add more **browns** and turn it.

If it is not breaking down, it may be too dry or need more nitrogen; add water or some green materials.

If the mixture is dark, crumbly and smells like rich earth it's ready to use in your garden.