Residential Compost Guide

Sponsored by:

Ottawa County Soil & Water Conservation District

Ottawa, Sandusky, Seneca Joint Solid Waste Management District

Sandusky County Park District

Composting is nature's way of recycling organic material and is defined as the biological decomposition of organic matter under controlled conditions. This method of dealing with our waste reduces the amount of material sent to landfills.

Listed below are the two landfills located within our three county District made up of Ottawa, Sandusky and Seneca Counties.

20% of most community's waste stream is yard waste.

36% of the District's waste is being recycled.

PORT CLINTON LANDFILL

530 North Camp Road
Port Clinton, Ohio 43452

Phone: 419-635-2367

Monday - Friday
8:00 a.m. - 3:30 p.m.

SUNNY FARMS LANDFILL

12500 W. Seneca Co. Road 18
Fostoria, Ohio 44830

Phone: 419-436-0555

Monday - Friday
8:00 a.m. - 4:00 p.m.

Things to Consider

Before creating this living organism, you need to ask yourself a few questions to find out which type of bin you want, and how large of a pile will work best for you.

A few questions to consider before beginning are:

- How much time do you have to devote to composting?
- How much labor are you willing to invest?
- Does turning the pile once a week appeal to you?
- How much space is available for composting?
- Do you have access to kitchen scraps only, or a mixture of kitchen scraps and yard waste?
- How quickly do you want the finished product?
- And, how much money are you willing to spend on a bin?

The answers to all of these questions will lead you in the type of composting that best suits your lifestyle.

5 ESSENTIAL INGREDIENTS

1. Shelter

The average size of a compost pile should be within 3' x 3' x 3' (1 cubic yard) and 5' x 5' x 5'. Maintaining a pile within this range will allow for aerobic decomposition with less offensive odors, while larger piles will encourage anaerobic decomposition, which tends to have a methane odor.

A pile smaller than 1 cubic yard may not produce a substantial amount of humus (new soil) and they also tend to have a longer decomposition rate. If a pile becomes larger than 125 cubic feet, too much heat may be produced and the micro-organisms killed off. Larger piles tend to have poor air circulation, which causes the offensive odors.

Location, location, location

There are several types of materials that can be used to build your compost pile. Materials are not limited to those listed below.

- Hay or straw bales
- Bricks or concrete blocks
- Plastic trashcans
- Wooden pallets or boards
- Wire bins

5 ESSENTIAL INGREDIENTS

2. Food

Organic matter such as leaves, grass clippings, garden plants, weeds, animal manure and vegetable trimmings make excellent compost material. A variety of materials is desirable and a ratio of 30 parts fibrous matter (leaves, garden plants) to 1 part nitrogenous matter (animal manure) is best.

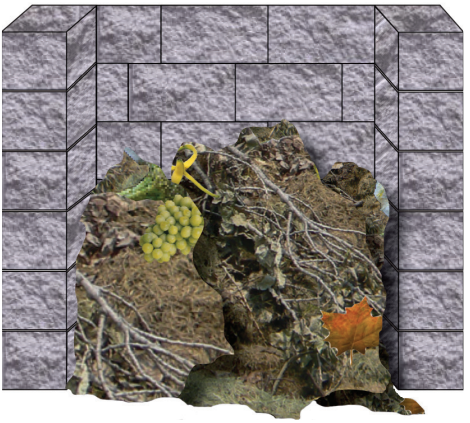
It's a living organism!

TYPES of BINS

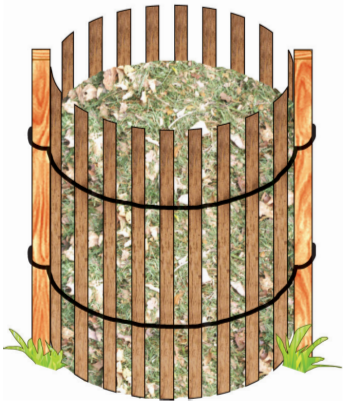
Types of bins are not limited those shown below.

Chicken Wire Bin

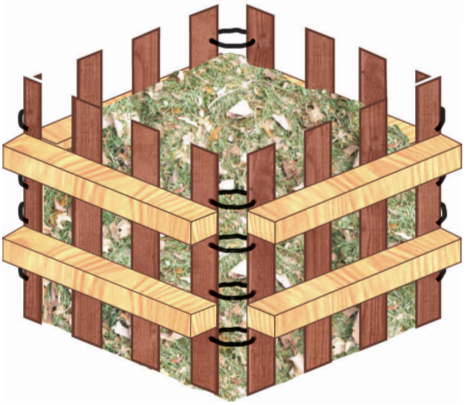
Cynder Block Walls



Snow Fence Bin



Wooden Pallet Bin



The In's of Composting

NITROGENS C:N Ratio

- Barnyard Manure 15:1
- Coffee Grounds 20:1
- Flowers
- Fruit Trimmings 35:1
- Grass Clippings 20:1
- Green Leaves
- Hay 25:1
- Hedge Clippings
- Sod
- Syrup
- Vegetable Trimmings 25:1
- Weeds 30:1

CARBONS C:N Ratio

- Ash 25:1
- Bread
- Cardboard 350:1
- Coffee Filters
- Dry Leaves 60:1
- Eggs/Eggshells
- Hair
- Leaves
- Lint
- Macaroni
- Molasses
- Moss
- Newspaper - shredded 175:1
- Nut shells
- Pancakes
- Paper - with soy ink, is ok. Shredded in small amounts.
- Pine Needles & cones - in small amounts 80:1
- Sawdust 325:1
- Straw 75:1
- Tea Leaves with bags
- Twigs
- Wood Shavings 400:1

The Out's of Composting

DO NOT COMPOST

Ashes from coal or charcoal, treated or painted wood
Bones
Butter
Cat Litter
Cigarettes
Cheese
Chicken
Diapers
Diseased Plants
Dog or Cat Feces
Doughnuts
Fish / Fish bones
Greasy Foods
Invasive Weeds
Lard
Mayonnaise
Meat
Milk Products
Oak Leaves
Oils
Peanut Butter
Plastic
Rhubarb Leaves
Salad Dressing
Sour Cream
Tar
Tin
Unchopped Woody Waste
Vegetable Oil
Window Cleaner

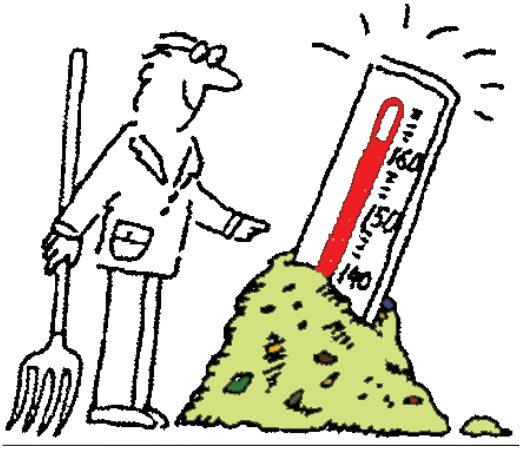
5 ESSENTIAL INGREDIENTS

3. Heat

The temperature of the compost pile is important for the health of the pile. If you are planning to add diseased vegetation or seed heads from weed plants, the pile needs to maintain a temperature between 90°F to 140°F. This high heat will kill the disease on the vegetation as well as weed seeds and prevent the spread of either problem.

A long thermometer is especially designed for reading temperatures in compost piles. To receive an accurate reading, place the thermometer into the center of the pile, at least 4" deep.

Check the temperature.



5 ESSENTIAL INGREDIENTS

4. Air

Oxygen is vital because composting is essentially an aerobic (in the presence of air) process. The bacteria require oxygen to live and multiply. If the air supply is cut off, anaerobic bacteria will take over and unpleasant odors and poor quality compost may result.

STIR your compost pile!

Turning the compost with a pitch fork or shovel serves two purposes:

1. It aerates the pile, adding the necessary oxygen for the beneficial bacteria; and
2. It brings the outer, less decomposed portions of the pile into the center where the high heat bacteria will go to work.

5 ESSENTIAL INGREDIENTS

5. Water

Water is essential to composting, so the pile should be about as wet as a wrung out sponge. If it is too soggy and waterlogged, the bacteria and other beneficial organisms will not get enough air. On the other hand, a lack of moisture will delay the composting process.

Generally, the initial moisture will be adequate when grass clippings, vegetable trimmings or garden plants are used to build a compost pile. Since leaves usually contain little moisture, a pile with large quantities of leaves usually requires the addition of water.

put your HAND in there!

TROUBLE SHOOTING

Symptom: The pile has a rotten smell.

Problem:
- Too much moisture.
- Overly-compacted (anaerobic conditions).
- Food remains on top of pile.

Solution:
- Turn the pile to aerate it.
- Do not water as often.
- Mix in dry materials to absorb moisture.
- Cover pile when it rains and if it snows.

Symptom: The pile is attracting flies.

Problem:
- Attracted by food remains, especially meat and fatty foods.
- Overabundance of fly larvae (maggots) in pile.

Solution:
- Avoid including meat scraps or fatty food remains.
- Bury food 8-12″ deep.
- Add more carbon or nitrogen to increase activity.
- Cover the pile.

TROUBLE SHOOTING

Symptom: The pile is attracting large animals.

Problem:
- Attracted by food remains, especially meat and fatty foods.

Solution:
- Avoid including meat scraps or fatty food remains.
- Bury food remains 8-12″ deep.
- Use bin with less than 2″ openings.
- Rats: use bin greater than or equal to $^1/_2$″ openings to cover all sides of the pile.

Symptom: The pile has an ammonia smell.

Problem:
- An overabundance of green materials (too much nitrogen).

Solution:
- Mix in brown material (carbon) to balance the nitrogen.

TROUBLE SHOOTING

Symptom: There is a pale green mold on the pile.

Problem:
- Lack of oxygen.

Solution:
- Turn the pile to aerate it.
- Add lime.

Symptom: There are lots of ants in the pile.

Problem:
- Pile is too dry.

Solution:
- Add water.
- Add fresh cucumber peels.

Symptom: The pile is too hot (above 150°).

Problem:
- Insufficient ventilation or aeration.
- Overabundance of green materials (too much nitrogen).

Solution:
- Aerate the pile.
- Reduce the size if necessary (to 1 cubic yard).
- Mix in brown material (carbon) to balance nitrogen.

TROUBLE SHOOTING

Symptom: The pile has a low temperature (below 90°).

Problem:

- Insufficient aeration.
- Insufficient moisture.
- Lack of green material (low nitrogen).
- Cold weather.
- Small pile (less than 1 cubic yard).
- Completed composting process.

Solution:

- Turn pile more frequently.
- Mix in green materials and small amounts of water.
- In cold weather, insulate the pile with 4-5" straw/hay.
- Build a 1 cubic yard pile.