

August 13, 2014

Volume 2, Issue 9



Recycling Tidbits

Inside this Issue

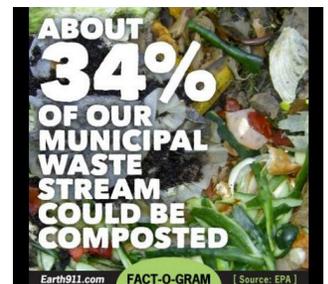
| | |
|------------------|---|
| Bin or Pile? | 2 |
| Construct a Bin | 2 |
| Finished Compost | 3 |
| Using Compost | 3 |
| Stump the Grump | 3 |
| Troubleshooting | 3 |

Compost Basics

The National Composting council estimates the average U.S. household generates 650 lbs. of compostable items every year. Composting is a great way to deal with food waste, leaves, and grass clippings. Backyard compost systems

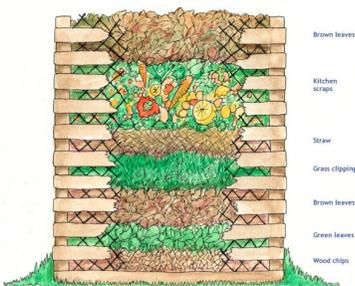
reduce the amount of waste going to a landfill and keeps garbage from smelling. Finished compost is a valuable soil amendment that increases the health of the soil and the plants that reside in it. When composting at home

it is important to remember a healthy pile needs food, oxygen and water.



Food

Compost is made when bacteria, fungi, actinomycetes, mites, worms, sow bugs, centipedes, and other organisms eat the organic matter and break it down. These organisms need a balanced diet of carbon and nitrogen, commonly known as browns and greens. Brown items add carbon to the pile and include: leaves, straw, paper, sawdust, animal bedding mixed with manure, and wood chips. Common green or nitrogen rich items include: vegetable and fruit scraps, coffee grounds, grass clippings, and manure from herbivores. When added to a pile of 2 or 3 browns for every green, by volume, organisms flourish and compost is quickly made. If this ratio is altered the process becomes slower.



Great illustration of layers in a compost bin.

Other acceptable compost materials include, egg shells, tea bags, used potting soil, most weeds before they go to seed, garden debris, cardboard, hair, fur, and other natural fibers like lint. When adding dryer lint avoid using non-organic fibers like polyester.

Not everything should be composted. It's best to avoid meat, dairy, oils, and animal waste as these items will create an odor and attract rodents.



Persistent weeds (crabgrass, invasive species, weeds gone to seed) and diseased or chemically treated plants may live on in the compost pile. Most backyard systems won't get hot enough to kill these items and will live on in the newly created compost. You should also avoid adding walnut leaves as walnut trees have a naturally occurring chemical in them that inhibits growth in other plants.

Oxygen

It's important to remember that compost piles need oxygen. If a pile is starved for air, all activity stops and it may start to smell. Turning the pile or inserting sticks, cornstalks or perforated pipes into or under the pile are all ways to ensure enough oxygen is reaching the compost.

Water

Water is vital to support compost pile organisms. If a pile is too dry, bacterial activity will slow or cease; if it's too wet, the pile will lose air and lead to anaerobic conditions (meaning smells will form). Piles should be as wet as a wrung out sponge. A simple moisture test is to take a handful of compost and squeeze it. If it stays together in a ball it's good; if it falls apart add water; if water drips out, add browns and or turn the pile.

Bin or Pile?

Compost can be made using a bin or pile. Bins are usually more attractive, use vertical space better, and can help you stay better organized.

Both bins and piles should be approximately 3 x 3 feet or 5 x 5 feet, near a water source, convenient site to the house or garden, at least 2 feet from any building, and 25 feet from wells.



Construct a Bin



Wood Pallet Bin

Cost: about \$30

Capacity: 8 - 10 30-gallon bags of yard waste materials

Degree of difficulty: little to no building skills needed

Materials

- * 4 wooden pallets (5 if you want a bottom for the bin), sized to make at least 3 x 3 x 3 feet
- * 8 large hook-and-eye gate latches (bolt latches, rope or bailing wire are also options)
- * Level
- * Shovel
- * Work gloves

Construction

1. Level the ground where the pallet bin will sit.
2. Connect 4 pallets with hooks and eyes or bolt latches to make a four-sided bin at least 3x3x3 ft. (pallets can also be tied or wired together)
3. (optional) A fifth pallet may be used as a base to allow more air to get into the pile and to increase the

bins stability. However, this base pallet will decompose faster than the sides and make it more difficult to turn the bottom of the pile.

Wire Mesh Bin

Cost: about \$75

Capacity: 8 - 10 30-gallon bags of yard material

Degree of difficulty: little to no building skills needed

Materials

- * 36" wide 1/2" hardware cloth (chicken wire), 12.5 feet
- * 4 metal or plastic clips or wire ties
- * 3 or 4 metal posts, 4' (optional)
- * Heavy-duty wire or tin snips
- * Pliers
- * Hammer
- * Metal file
- * Level
- * Work gloves

Construction

Roll out and cut 12.5 feet of hardware cloth. Snip the ends off of the hardware cloth close to the cross wire. Then file down the sharp edges to make it easy to clip together and avoid snagging hands.

2. Bend the hardware cloth into a circle and overlap the ends of the fencing over each other. Attach clips



or ties and set the bin in a level place.

3. (optional) Place metal stakes evenly around the inside edge of the bin and hammer them into place.

Can Composter

Cost: less than \$30

Capacity: about one 30-gallon bag of yard materials

Degree of difficulty: little or no building skills needed

Materials

- * 30- 50 gallon trashcan with cover (metal or plastic will work, but plastic will last longer)
- * Bricks or cement blocks (optional)
- * Power drill
- * Work gloves

Construction

1. Drill 3 rows of holes 1/2" to 1" in size 4 - 6" apart around the sides of the can. Then drill several holes in the lid and the bottom of the trashcan.

2. (optional) Place can on cement blocks or bricks to increase air circulation.



Finished Compost

Finished compost is dark, loose, crumbly and has an earthy smell. The original materials are unrecognizable and the pile has shrunk to about 1/3 of its original volume.

There are two simple tests you can perform to make sure compost is finished.

Bag Test

Using a sealable plastic bag, add a sample of compost and let it sit for a week. If the compost has an ammonia smell, it is unfinished.

Germination Test

This next test is a bit more work but is also more sensitive and reliable. The test uses fast germinating seeds (cucumber) to determine if enough phytotoxins (poisonous substance derived from plants) are left in the compost to inhibit germination.

1. Fill two containers with moist compost.
2. Fill two containers with moist soil.
3. Plant eight seeds in each of the four containers according to packet directions.



4. Cover the containers with plastic wrap to keep the contents moist.

After five to seven days count the number of seedlings. If the compost containers yields the same or more seedlings than soil it is finished.

Uses for Compost

Soil additive; dig in or side-dress plants

to water yard, garden and houseplants

Mulch; 2 - 3 inches around flowers, vegetables, trees and shrubs



Lawn top dressing; screen with 1/2" hardware cloth attached to wooden frame

Mix in potting soil; compost should never be more than a third of any potting mixture

Compost Tea; soak bag of compost in water. Use liquid

Recipe #1

- 2 parts good garden loam (rich black soil)
- 1 part fine, sharp sand
- 1 part finished compost

Recipe #2

- 2 parts soilless mix
- 1 part compost

Recipe #3

- 1 part peat
- 1 part perlite
- 1 part compost

Stump the Grump

True or False:

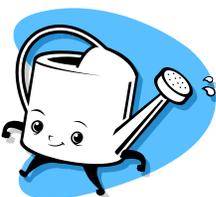
Compostable material will biodegrade in the landfill.

Answer:

False. Landfills are capped and sealed, which keeps oxygen out. Oxygen is an important factor in degrading or breaking down materials.



Troubleshooting Compost



Dry or crackles to the touch.

Too Dry; add water; keep pile as damp as a wrung out sponge

Soggy, may smell.

Too Wet; turn pile to add oxygen. Discontinue watering until pile is damp. The addition of browns may also help.

Pile matted especially if grass clippings used. Smells bad.

All Green; turn pile and mix in approximately equal weights of brown materials.

Pile matted, smells, attracting varmints.

Meat, fat, salad, oils; remove this material and throw into the normal trash.

Smells bad.

Anaerobic; needs oxygen, turn pile.

Nothings happening.

Too Dry; add water. Not Enough Greens; add greens such as grass clippings or fruit and vegetable scraps.

