

Backyard Composting

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WHY COMPOST?

- Reduce waste added to the landfill
- Reduce energy used hauling green waste and industrial composting
- Create rich soil amendment for your garden
- Great fun and physical activity
- Educational for the whole family

WHAT IS COMPOST?

Technical: Biological process of decomposition of organic matter by bacteria and other organisms

Simple: Combination of green materials (nitrogen), brown materials (carbon), oxygen, and water

Compost is the END-PRODUCT

COMPOST SCIENCE

- Biological process dependent on:
 - Organic materials
 - Micro and Macroorganisms
 - Carbon and Nitrogen
 - Water and Oxygen
 - Temperature



CARBON AND NITROGEN

- Carbon-Nitrogen Ratio (C:N) - the balance of these elements determines how easily bacteria decompose organic material
- Carbon is consumed for energy and is needed in larger ratio

CARBON “BROWNS”

Woody materials, dry leaves, corn stalks, straw, bark, sawdust, paper products
Shred or chip materials large, bulky materials

NITROGEN - “GREENS”

Grass clippings, old flowers, weeds, garden prunings, and vegetable waste
Non-green “Greens” = coffee grounds, dried grass clippings, manures, fruit scraps,

FINDING THE BALANCE

- Ideal C:N Ratio is 30:1
- Equal volumes of carbon rich materials and nitrogen rich materials

Examples of ratios:

Material	Carbon: Nitrogen Ratio
Bark	120:1
Corn Stalks	60:1
Leaves	60:1
Paper	170: 1
Grass Clippings	20:1
Coffee Grounds	20:1
Poultry manure	10:1
Vegetable Waste	15:1

BUILDING THE PILE

1. Gather and store green and brown materials separately Keep stored materials dry and well-ventilated
2. Chop organic materials >3" Use a shovel or hand tool, or electric chipper
3. Start the pile with 4-6" layer of brown material Add a 4-6" layer of green materials, kitchen waste Moisten the pile after the green layer is added Repeat until all materials have been used

NOTE: Once the pile is built, do not add new materials

NEXT STEPS

- Check moisture level Moisten materials while building pile
- Provide oxygen Aerobic vs anaerobic Turn and mix the pile regularly (weekly)
- Manage temperature Most effective between 90-160 degrees, optimal between 122-131 degrees Pile composition, size, oxygen, moisture and age

COMPOST DON'TS:

- Cat and Dog feces
- Diseased plants
- Flowering weeds
- Meat, fish, and dairy products
- BBQ ashes
- bones
- Ivy, bermuda grass, palm

STYLES OF COMPOST BINS

Choose the method that works best for you!

Volume - Minimum 3' x 3' x 3'

Ventilation and moisture - Sides, lid, wire mesh, tarping

Access to Turn - Room and flexibility to turn pile frequently

“Holding bin” decomposition

Rodent Resistance - Lid, Floor, no large holes

Construction - Recycled wood, pallets, fence- boards, 1/4” Wire Mesh Cement blocks

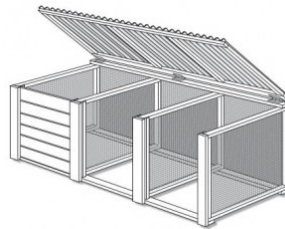
Three Bin System

Pros:

- Great for big gardens
- Can have multiple piles at one time

Cons:

- Takes a big space
- Requires you to turn the pile manually



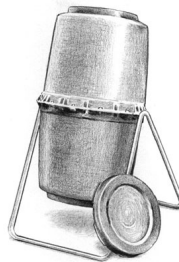
Tumbler

Pros:

- Easy to turn pile
- Small
- Can use mostly food scraps
- Clean looking

Cons:

- Can be expensive



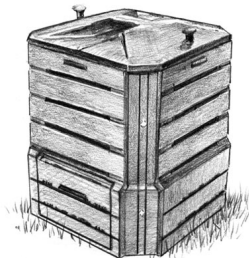
Closed Compost Bin

Pros:

- Clean looking

Cons:

- Expensive
- Can be too small
- Hard to turn



Make your own

Pros:

- Any material can be used
- Inexpensive
- Can add multiple bins if needed
- Make any size

Cons:

- Can look messy

