



Home Composting Made Easy

Goodbye Waste...Hello Black Gold

City of St. Louis Refuse Division

Why compost?

- Annually, the City of St. Louis trashes 20,000 tons of yard waste.
- Avoid costs.
 - Approximately \$600,000 a year in disposal facility fees.
- Conserve fuel consumed to collect and haul yard waste.
- Reduce pollution.

Why compost?

- Eliminate or reduce need for fertilizers.
 - Keep nutrients in soil, near roots.
- Eliminate or reduce need for pesticides.
- Prevent erosion, reduce soil compaction.
 - Avoid expenses on topsoil.
- Conserve water, improve drainage.

What is compost?

- Nature wastes nothing.
 - Plants and animals are born, live, die, decay, then are recycled by other plants and animals.
- The decayed organic matter is called humus.
 - It is the essence of soil.
 - It is what plants need to grow, just as plants are what animals need to grow.



www.growitgold.com

What is compost?

- Created by live creatures, known as decomposers.
 - They consume and digest organic materials in your composting bin.
 - Some of them feed on plant debris.
 - Some feed on each other.
 - And then there are the omnivores that feed on everything.

What is compost?

- Among the beneficial beings that aid in the process of turning compost into humus:
 - Ants, beetles (e.g., hister, rove), caterpillars, centipedes, earthworms, fungi, land snails, maggots, microscopic organisms (e.g., bacteria, nematodes, protozoa), millipedes, mites, pseudoscorpions, slugs, sowbugs, pill bugs, springtails.



<http://www.jmgkids.us/>

How to compost

- Sheet composting.
 - Organic wastes are spread across soil surface, then turned under to decompose in place.
- Pit composting.
 - Organic wastes are buried, then allowed to decay.
- Passive composting.
- Active composting.

How to compost

- Location.
 - Accessible for loading and unloading.
 - Accessible by wheelbarrow or garden cart.
 - Siting your compost pile in a shady spot can help retain moisture.
- Bin or heap?
 - Your choice; must be exposed to air; should be protected from rain and snow.

How to compost

- What size should your compost pile be?
 - 3' high x 3' wide' x 3' deep.
 - This is the optimum size for heat retention and oxygen circulation.
- Shred or grind your organic debris.
 - Reduce particle size, increase surface area – make it easier for decomposers to digest materials.

How to compost

- “Food”
- Water
- Air
- Temperature
- Time



How to compost ~“Food”~

- Balance the ratio of carbon to nitrogen.
 - 25 or 30 to 1 (25:1 to 30:1)
- "Browns" = carbon-rich materials; brown, dry.
 - For decomposers, carbon is equivalent to us eating carbohydrates for energy.
- "Greens" = nitrogen-rich materials; green, juicy.
 - For decomposers, nitrogen is equivalent to us eating protein for growth.

How to compost ~“Food”~

- "Browns" (carbon-rich)
 - Bark
 - Leaves, dried
 - Pine needles (small amounts, due to acidity)
 - Plant stalks, dried
 - Sawdust
 - Shrub and tree trimmings
 - Straw
 - Wood ashes, branches, chips, shavings, twigs



How to compost ~“Food”~

- "Greens" (nitrogen-rich)
 - Coffee grounds
 - Eggshells
 - Garden and grass clippings
 - Leaves, fresh
 - Produce (i.e., fruits, vegetables)
 - Unwanted vegetation aka “weeds”



How to compost

~“Food”~

- Non-compostables
 - Anything treated with fungicides, herbicides, insecticides, pesticides
 - Black walnut
 - Blood, bones, meat
 - Cat or dog feces
 - Dairy products
 - Dead animals



How to compost ~“Food”~

- Non-compostables (continued)
 - Diseased plants
 - Eucalyptus
 - Fat, grease, oil
 - Fish scraps
 - Garbage, refuse, trash, waste
 - Glossy paper, magazines
 - Hollies, oaks, southern magnolias



go4green.sask.com

How to compost ~“Food”~

- Non-compostables (continued)
 - Weeds - creeping or seed-bearing
 - Sunflower seeds
 - Vacuum cleaner dust

How to compost ~“Food”~

- Is your compost pile decomposing slowly?
 - It may have too much carbon. Add “greens.”
- Does your compost pile smell like ammonia?
 - It has too much nitrogen. Add “browns.”

How to compost

~Water~

- Every living thing needs water.
- What is the most common reason compost piles fail?
 - Lack of moisture.
- How moist should your compost be?
 - Not too wet, not too dry.
 - Just right = like a wrung-out sponge; damp (not soggy).



How to compost

~Water~

- What happens if it's too wet?
 - Anaerobic decomposers = foul odor.
- What happens if it's too dry?
 - Bacterial action slows or stops.

How to compost

~Air~

- The desirable organisms that cause organic materials to decompose are aerobic; they live on oxygen.
- Choose a compost bin that does not impede the flow of air around the heap.
- To keep process moving, compost pile needs to be aerated periodically.
- A well-aerated pile of mixed "browns" and "greens" should not have an odor.

How to compost

~Air~

- Has your compost pile cooled off?
 - Aerate the heap.



www.moea.state.mn.us

How to compost ~Temperature~

- What makes your compost pile hot?
 - Energy released by organic debris as decomposers digest materials.
- Will it help to site your compost pile in sun?
 - No. This simply dries out compost faster.
- What temperature should it be?
 - 150°F kills weed seeds and pathogens.

How to compost

~Time~

- How quickly can you compost?
 - Minimum = about six weeks.
- How will you know when it's done?
 - Volume = reduced by half.
- Suggested: Wait until heap has cooled and compostables are indistinguishable, then let ripen another four to eight weeks (to finish transforming to humus).

What can you use compost for?

- Grow houseplants.
 - Mix with potting soil.
- Use as mulch.
 - Layer around plants, shrubs, and trees.
- Amend garden soil.
 - Make sand more absorbent, clay less compacted.
- Sprinkle over lawn.
 - In a layer up to 1/4-inch thick, each spring and fall.

The Beginning



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