

nourish

Garden *for* Health

Composting



Feb 5	Composting	<i>welcome!</i>
Feb 26	Fruits	
Mar 11	Propagation	
Apr 1	Container Gardens	
Apr 22	Vegetable Gardening	



Schedule

Sign up for our upcoming classes!

Meet Your Garden and Kitchen Guides



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“If a healthy soil is full of death, it is also full of life: worms, fungi, microorganisms of all kinds [...] Given only the health of the soil, **nothing that dies is dead for very long.**”

Wendell Berry, *The Unsettling of America*

Compost vs Humus

Compost

- » Decaying
- » Heterogenous
- » Human involvement
- » Aerobic & anaerobic

Humus

- » Thoroughly decomposed organic material
- » **Dark brown** and looks like soil
- » Damp and spongy
- » Rich in available **N, P, K, Mg, and Ca**



Why compost?

- » Reduce food waste
 - 40 % of waste in U.S. landfills
 - unproductive
- » Full spectrum fertilizer
- » Teaching tool
- » “Moderate” physical activity
- » Environmental stewardship

Which of these is a reason you might compost?



ORGANIC *fertilizers*

feed the soil
and the plant

TRADITIONAL *fertilizers*

feed only the plant
and damage the soil

ORGANIC MATTER

PLANT NUTRIENTS

MICRO-ORGANISMS

SOIL NUTRIENTS

PLANT NUTRIENTS



What to put in your Compost



In an ideal compost pile you are looking for a "brown" (carbon) to "green" (nitrogen) ratio of about 25:1 to 30:1 (C:N)

Managing your compost

Do

- » Cooked or raw fruit and vegetables
- » Dead leaves / dead flowers / lawn trimmings
- » Hay / straw / twigs and sticks
- » Shredded newspapers / cardboard
- » crushed eggshells (rinse to prevent pests)

Don't

- » Cat or dog waste
- » Meat, dairy, oil, salt
- » Produce stickers
- » Diseased plants

Brown : Green Ratio 25-30 : 1

Brown

- » Dried and chopped leaves
- » Dried lawn clippings
- » Hay, straw, small twigs (broken)
- » Shredded newspapers, cardboard

Green

- » Dead flowers or plants (w/o disease)
- » Fruit / vegetables scraps
- » Crushed egg shells
- » Animal hair, fur



DIY Compost

At-home solutions

Creating your compost

Assembly

- » Layers should be ~ 1 foot thick
- » Intersperse different types of materials
- » Thin layers of material to speed decomposition and reduce need for turning

Amendments

- » Molasses for “energy”
- » Blood meal, feather meal for Nitrogen
- » Existing compost to transplant microbes





Managing your compost

Feed

- » Add green and brown-type materials to encourage a good carbon-nitrogen ratio

Water

- » Cooked or raw fruit and vegetable scraps or leftovers

Measure Temperature

- » Use compost thermometer to routinely take temperature. Ideally will be between 140-160* F

Aerate

- » Periodically turn to introduce oxygen. Keep 4x4" or put PVC pipe "chimney" with holes in center

How to use finished compost

Compost mulch

- » Helps retain soil moisture and
- » Add a 3 inch layer

DIY potting soil

- » Moist and nutrient-rich soil additive
- » Add to existing containers, starting seeds, or repotting plants

Compost tea

- » Mineral and nutrient-rich liquid fertilizer
- » Add directly to soil



Small-scale and simple composting ideas



Compost Heap

- footprint adjustable
- no construction required



Large plastic tub or trash can

- inexpensive (\$5 - 40)
- drill / add holes for aeration
- transportable
- small footprint



Trench (pit) composting

- inexpensive
- allows worms, microbes to enter
- easy to maintain

Large-scale or composting ideas



Chicken wire bin

- good aeration
- contained
- requires adequate space



Tumbler composter

- easy to add, aerate
- costly (\$80 - 200)



Multi-bin compost

- allows for staging decay
- crafty-inclined
- larger space required

Today's Activities

Garden



- » Check out the garden
- » Visit tumbler compost bins
- » Make compost "tea"
- » Demo an at-home compost bin

Kitchen



- » Clean our winter harvest
- » Cooking demonstration
- » Take home extras and herbs

Thank You!

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🔗 sph.uth.edu/research/centers/dell/nourish-program/



DIY Compost “Tea” Recipe

Make a nutrient-rich liquid fertilizer full of commensal bacteria and fungi that can be diluted and then applied directly to soil.

Makes 5 gallons

Ingredients

- 5 gallon bucket of rainwater or tap water that has sat for 24 hrs
- 1-2 cups finished compost
- ¼ - ½ cup unsulfured molasses
- 1 Tbsp liquid kelp fertilizer
- 1 Tbsp liquid fish fertilizer



Directions

1. Put compost straight into bucket of water or in a tied off pantyhose.
2. Add molasses, kelp, and fish fertilizer and stir well.
3. Let sit for 24 hours. Toss if the mixture sits for longer than 24 hrs or starts to smell foul.
4. Apply directly to plant root zone from bucket or with watering can.