Composting at Home

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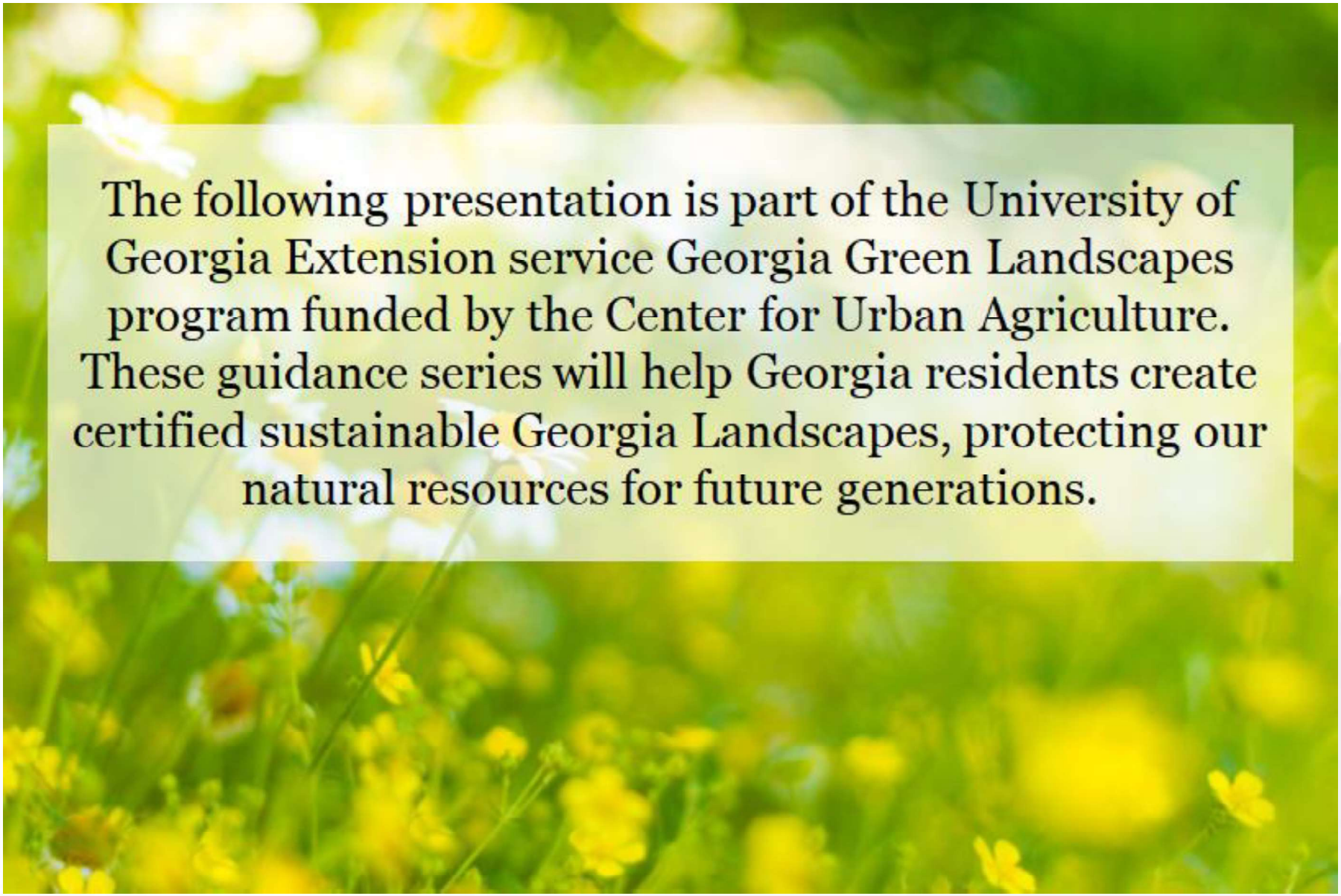

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What is Compost?

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Compost is a soil amendment. It is a nutrient-rich, dark, crumbly material that helps improve soil health and provides essential nutrients to plants. Compost is the result of the natural decomposition process that turns the nutrients from once-living materials into a rich, organic component of soil, humus. Humus is created during the production of compost.

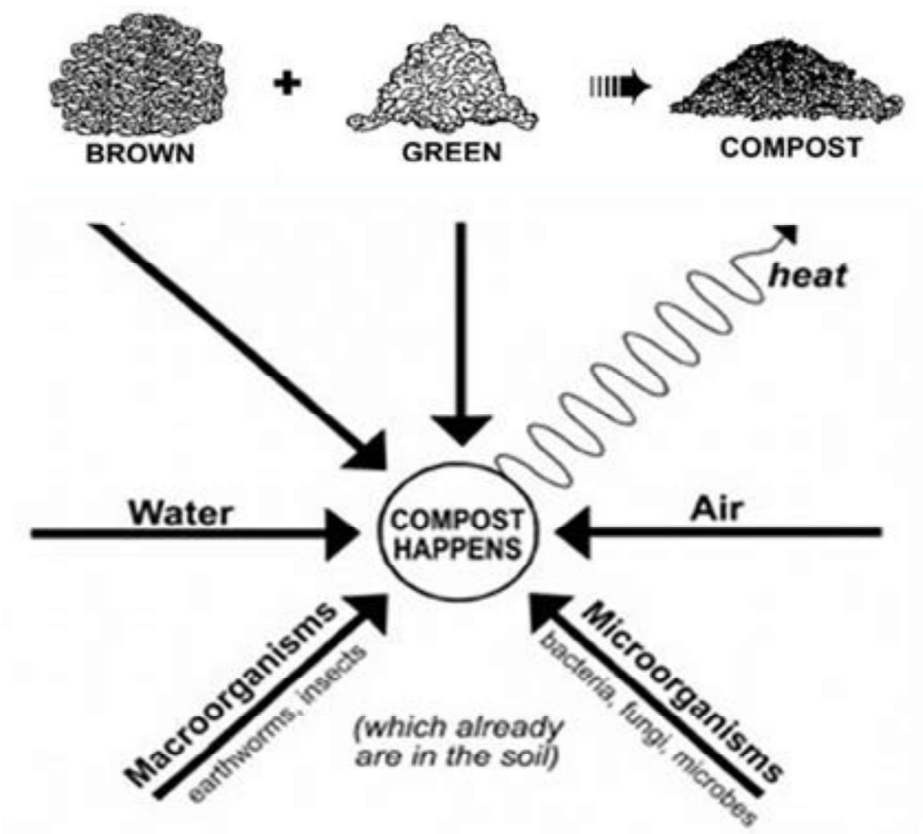
What is Composting?

Composting is the recycling of organic materials or a method of solid waste management whereby the organic components of the solid waste stream is biologically decomposed under controlled conditions to produce a valuable end product (Goldstein, ed., Biocycle Guide to the Art & Science of Composting, p.14).

Why Compost?

- Reduces waste going to landfill (and number of times you have to take out the trash)
- Less stinky trash
- Improves soil quality
- Saves money
  - Fertilizer
  - Organic matter
  - Garbage fees

How to Compost?



- 1/3 Greens (nitrogen)
- 2/3 Browns (carbon)
- Air
- Water
- **Bacteria**

Green vs. Brown

Green

- Vegetable and fruit scraps
- grass clippings

Brown

- Dry leaves
- Sticks and twigs
- straw

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What to Compost?

- Grass Clippings
- Leaves
- Twigs
- Tree & Shrub Prunings
- Flowers
- Sawdust
- Fruit & Vegetable Scraps
- Coffee grounds/tea bags
- Egg shells

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What Not to Compost?

These items can attract pests, create foul odors, or carry pathogens.

- Dairy products (milk, cheese, butter, sour cream, etc.)
- Meat
- Bones
- Dog or cat manure
- Oils and other cooking fats
- Mayo
- Whole eggs
- Weed seed heads or rhizomes
- Invasive plants
- Diseased/insect ridden plants

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Do Not Add Lime

- Lime converts ammonium-nitrogen into ammonia gas and hastens the loss of nitrogen from the pile
- Microorganisms prefer an acid environment to initiate decomposition (lime raises pH)
- The pH of finished compost is usually 6.5-7.0 – perfect for the garden

Moisture Management and Turning

- Compost should be damp – wrung out sponge
- Sprinkle with water to moisten
- Add browns to reduce moisture
- Moisture helps compost to breakdown faster
- Turning compost increases air circulation and aids in decomposition
- More frequent turning will yield compost quicker

A Hot Pile

- Critical temp. for killing human pathogens is 131°F.
- Critical temp. for destroying weed seeds is 145°F.

Types of Home Composting

- Backyard Composting
  - Sheet Composting (Raised Bed Composting)
  - Trench (Soil Incorporation)
  - Com-posthole-ing
  - Traditional Backyard Compost Structures (bins)
- Vermi-Composting

Sheet Composting

- Easiest way to compost!
- Spread a 2-6 inch layer of carbon and nitrogen compostable materials directly on your garden beds and let them slowly break down until you can either plant directly in them or turn them into the soil.
- The breaking down process will take anywhere from two weeks to a season depending on soil conditions, techniques and materials.

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Trench Composting

- Simple – bury food scraps.
- Dig a trench about 12-inches deep (30cm), throw in the items, chop and mix with soil, then cover with remaining soil. In a few months the rotted material will have been incorporated into the soil and you can plant above them.

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Com-posthole-ing

- Com-posthole-ing is similar to trench composting except that it involves smaller areas. A posthole digger make holes between plants like tomatoes, and these holes can be filled with food scraps and covered with soil. By the following spring, organic matter should be well decomposed.

Types of Composting Systems

- Piles- no special tools or bins
- Holding bins- neatly contain materials, ward off animals, and keep in moisture
- Tumbling systems- designed for quick, hot composting.(May stay too moist.)

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Piles/Heaps

- Simple and economical
- Piled on top of each other directly on the ground.
- Materials can be added immediately or stockpiled.

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Hoops

- Usually made from hog wire or hardware cloth.
- Are easy and fairly inexpensive to build.
- Help keep your compost pile tidy.

Homemade Bins

- Bins-Neatly contain
- Yard trimmings and vegetable/fruit scraps. Can be homemade or store bought.
- Pallets and/or scrap wood can be used
- Garbage can with bottom removed
- Wire fencing and fenceposts

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Purchased Bins

- Keep optimum size of pile
- Store anywhere
- Hide wastes – aesthetics for HOA's.
- Cover Material

Tumblers

- Ease to tumble and keep compost mixed up
- Low maintenance
- Pest proof
- Avoids odor
- Make compost faster
- Keeps damp in dry conditions & warm in winter

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Troubleshooting

Symptoms	Problems	Solution
Bad Odor	Too wet	Add browns
Bad Odor	Not enough air	Turn pile
Center is Dry	Not enough water	Moisten & turn
Only Warm in Middle	Pile too small	Mix into larger pile
Will Not Heat Up	Lack of nitrogen	Mix in N Source

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Certification Checklist Items:

- Compost yard waste. Leaves, grass clippings, branches, and tree/shrub trimmings.
- Do not compost weed seed heads or rhizomes, invasive plants, or diseased/insect ridden plants.
- Compost kitchen scraps. Fruit and vegetable, eggshells, coffee grinds, and even sawdust from the workshop!
- Do not compost dairy, meat, bones, pet waste, oils, mayo and whole eggs.
- Turn your compost material regularly to aerate and maintain proper moisture level (a damp sponge). Sprinkle with water to moisten, or add browns - dry leaves, straw, twigs- to reduce moisture.

Questions?

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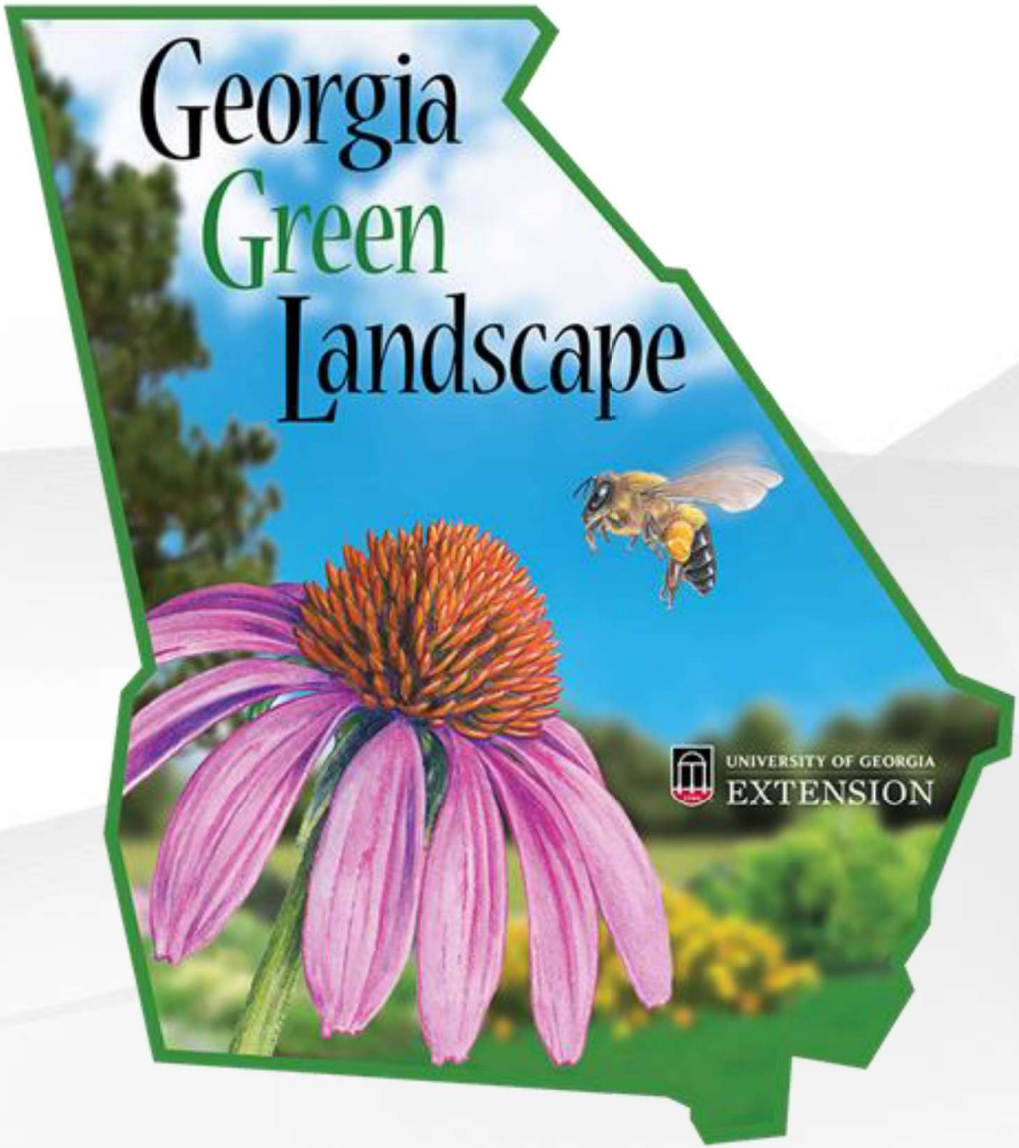
https://site.extension.uga.edu/georgiagreen/



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