

Collective Campus Composting at the Student Compost Cooperative

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Abstract

The Student Compost Cooperative (SCC) is a cross-disciplinary outreach program established by Dr. Ann Wilkie (Soil and Water Science Department, UF-IFAS) that fosters sustainability and nutrient upcycling through composting and sustainable gardening. The SCC hosts demonstrations and hands-on activities, promotes collaboration among other on-campus organizations, and seeks to popularize sustainability and composting through social media. The SCC also provides free garden plots for students that lack access to adequate space, while encouraging them to compost their food waste and use the finished product for their own organic gardens. Composting is a natural decomposition process in which organic wastes decompose into a nutritious soil amendment. Students learn to accelerate this process through appropriate nutrient ratios of carbon (leaves, twigs, cardboard) to nitrogen (food waste). The mixture is turned to allow oxygen to reach the aerobic microbial organisms that break down the organic matter. The advantages are substantial, from the reduction of commercial fertilizer use, to improving soil health, and preventing nutrient leaching. The SCC is located at Dr. Wilkie's BioEnergy and Sustainable Technology (BEST) Laboratory. All UF students and staff are invited to participate in the SCC to make this campus a more sustainable and interactive community of collective composters.

Introduction

The Student Compost Cooperative (SCC) is a student-led collective that hosts outreaches and organizes composting activities at the BioEnergy and Sustainable Technology Lab. UF students and faculty can compost their own food waste and in exchange receive the finished compost for their own gardens.

Why compost?

- Compost enriches soils with decomposed humus-like organic matter
- Compost improves water retention in soils and reduces the risk of nutrient leaching
- Composting food and organic waste significantly decreases landfill waste
- Using compost as a soil amendment further reduces the use of commercial fertilizers



Composting demonstration at the SCC



Active Composter at the SCC



Organic garden at the SCC

Objective

The Student Compost Cooperative aims to create a sustainable UF Community through collective student food waste composting, organic gardening, and educational outreach.

Compost Process

Five components to a successful compost:

- **Temperature:** Adequate, warm temperatures allow microbial organisms to thrive, which promotes decomposition
- **Substrate:** Organic materials, like food wastes, leaves, and yard trimmings
- **Moisture:** Compost should be damp
- **Aeration:** Adding mulch, and other bulky material increases oxygen availability to microbes
- **Mixing:** Distributes oxygen, microbes, moisture, and substrates for quicker decomposition

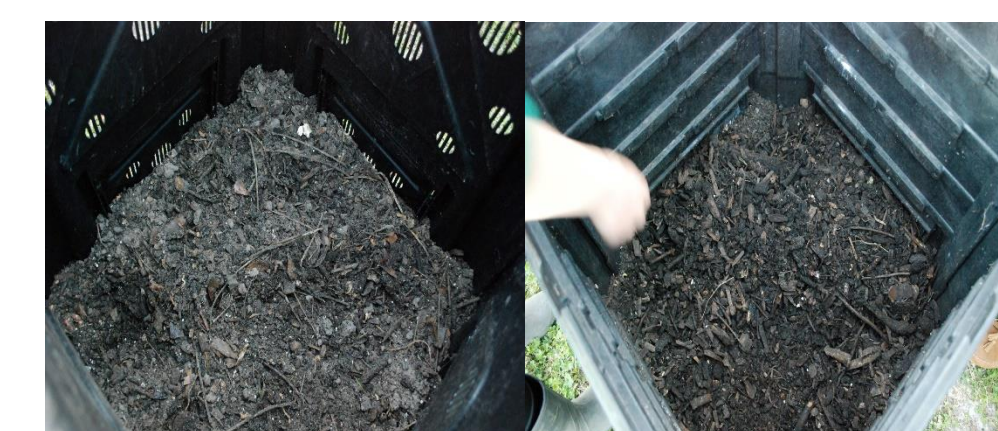
Browns: Carbon Rich Material (C)	Greens: Nitrogen Rich Material (N)
Dried leaves	Coffee grounds
Mulch	Coffee filters
Cardboard	Tea leaves
Pizza boxes	Fruit scraps
Paper	Vegetable scraps
Paper bags	Egg shells
Cardboard rolls	Bread products
	Grains

Table 1. Compostable Substrates

Composting at the SCC



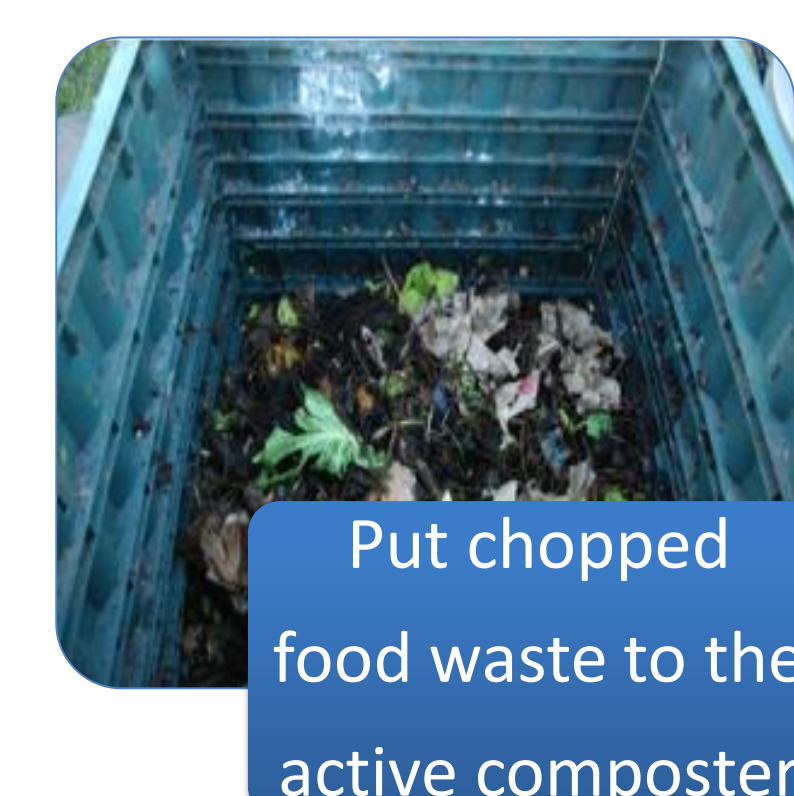
Active composter: Microbes actively digest material, producing heat and CO₂. This bin needs to be turned often to supply adequate O₂ for microbial digestion.



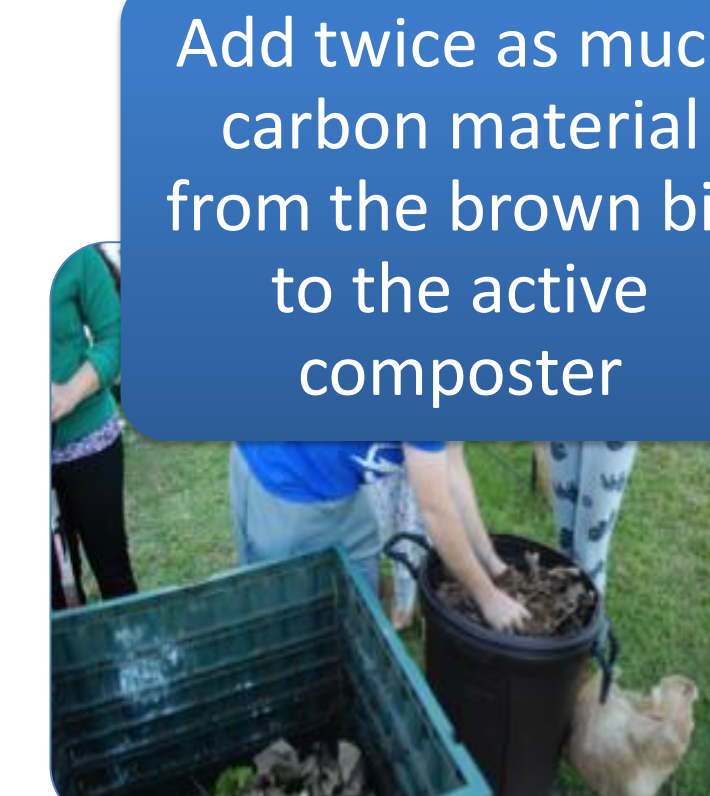
Semi-active composters: These two composters promote compost maturity and solubilization of nutrients. Once the maturation process is complete, the material is sifted and screened.



Final composter: Contains fine, humus-like material that is ready to be applied to the organic garden.



Put chopped food waste to the active composter



Add twice as much carbon material from the brown bin to the active composter



Mix with the pitchfork so green material is not exposed

Figure 1. Composting Method

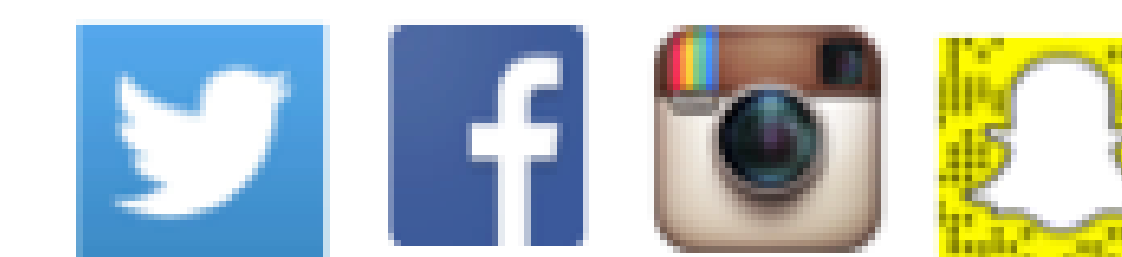
SCC Events

- **Compost Field Days:** Students and faculty participate in the mechanics of composting such as mixing and sifting compost, learn how to use finished compost for their gardens, and harvesting crops.
- **Compost to Crop Campus Workshops:** Students and faculty learn about the importance of composting, the different types of composting, and opportunities at the SCC.



Get Involved!

Connect with us for more information on events!



Twitter: UF Student Compost Co-op
Facebook: UF Student Compost Cooperative
Instagram: @Ufcompost
Snapchat: Ufcompost



Attend our events: Take a look at our schedule (right) and mark your calendars.

Visit our website: <http://biogas.ifas.ufl.edu/SCC/>



Location

Come to the facility!
2610 SW 23rd Terrace in Gainesville, Florida, 32608. The SCC is an outdoor facility situated in the UF Energy Education and Research Park, directly west of Building 246.

