Student Compost Cooperative — Diverting Food Waste From Landfills

Jennifer McGann[1] and Ann C. Wilkie[2]

[1] Department of Geography

[2] Advisor, Soil and Water Sciences Department, University of Florida-IFAS, Gainesville, Florida

Abstract

Composting is a natural process by which organic wastes decompose into a nutrient-rich soil amendment. Nutrients in organic matter like food scraps and yard trimmings can be recycled for use in agriculture, horticulture, and landscaping. Compost enriches soil with organic material and improves water retention, while also reducing disposal of organic waste into landfills. This decreases greenhouse gas emissions and reduces demand for commercial fertilizers. **The Student Compost Cooperative (SCC)** is a cross-disciplinary outreach program established by the Soil and Water Sciences Department, UF-IFAS, that fosters sustainability and nutrient upcycling through composting and gardening. The SCC has six composting bins, three rainwater harvesters, three vermiculture composters, a greenhouse, and two caterpillar enclosures to promote pollinators. The SCC provides free garden plots at the BioEnergy and Sustainable Technology (BEST) Laboratory, encouraging students to compost their food waste and to use the finished product in their own organic gardens. Students can also pot plants for the greenhouse or the herb table near the plots. The SCC hosts tours and events, promotes collaboration among other organizations, and strives to popularize sustainability through social media. All students and staff are invited to participate in the SCC to make the UF campus a more sustainable community.

Introduction

The **SCC** is a student-led and student-run outreach program that encourages others in the Gainesville community to bring their food waste and to learn about composting through hands-on experiences. All students, staff, and members of the Gainesville community are invited to bring their food waste to the **SCC** and to use the finished compost for their own garden plots.

Objective

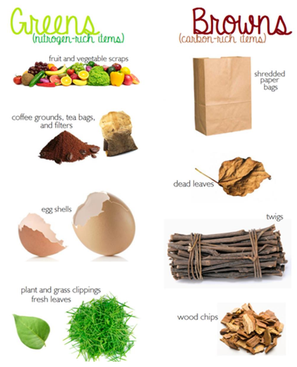
The **SCC** strives to create a sustainable Gainesville community by providing composting bins, plots for organic gardening, and educational outreach.

Why We Encourage Composting

- To keep greenhouse gas-producing food waste out of landfills
- Compost enriches soil with nutrients and organic matter
  - This helps the soil to retain its moisture and prevents nutrient leaching
- It provides a sustainable alternative to commercial fertilizers
- Composting teaches students how to live a more sustainable lifestyle

Compost Needs

- **Food waste material:** Organic matter, including food scraps, used coffee grounds, egg shells, cooked pasta, and much more!
- **Carbon material:** Shredded paper and cardboard, dead leaves
  - This soaks up moisture from the food waste and provides "bulking" material, which provides air space for the microbes
- **Temperature**: High temperatures help the microbial organisms within the food waste to thrive
- **Moisture:** The pile should resemble a "wrung-out sponge"—not too wet, not too dry
- **Aeration:** The decomposition process occurs faster when the pile is regularly mixed, distributing material and oxygen to microbes



The Compost Process

1. Add Food Waste

2. Add Equal Parts Carbon with Food Waste

3. Mix Pile with Pitchfork or Compost Mixer

4. The End Product: Compost

5. Sift the Compost

Try our new compost mixer!

6. Final Compost Applied to Garden Beds

7. Food Grown with Our Compost

Features of the SCC

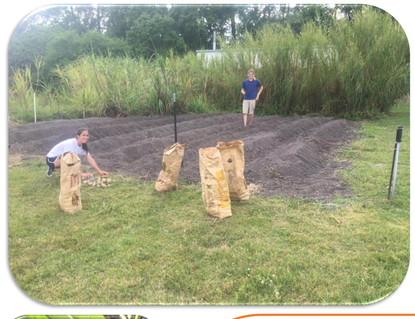
- ✓ Composting bins
  - ✓ We have 3 food waste bins and 3 composting bins for curing
  - ✓ The processed compost is provided to students for **free**
- ✓ Garden plots
  - ✓ Garden plots are **free** to students and tools are available in the toolshed
- ✓ Rainwater harvesters
  - ✓ No rain goes to waste at the SCC! We collect rain in our 4 rainwater harvesters to use for watering the plots
- ✓ A greenhouse with tools and supplies for potting plants
- ✓ An herb table
- ✓ Monarch Caterpillar and Butterfly enclosures to promote pollinators in the garden
- ✓ Vermiculture composting bins
  - ✓ These teach students about a different method of natural decomposition using worms

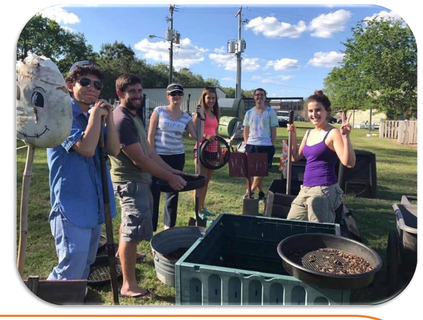
The three composting bins in which members add their food waste.

Contact the SCC coordinator to get your own plot!

The rainwater harvesters allow us to water the gardens sustainably.

New at the SCC! Our Monarch Enclosures help to promote pollinators in the garden.





Location & Involvement

Visit our website:
http://biogas.ifas.ufl.edu/SCC/index.asp

Join us on Facebook:
UF Student Compost Cooperative

The SCC is located at:
2610 SW 23rd Terrace
Gainesville, FL 32608

We are located at the BioEnergy and Sustainable Technology Laboratory in the UF Energy Research and Education Park.