

Spoils to Soils Project at the Student Compost Cooperative

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Abstract

Organic wastes such as food waste, spoiled fruits and vegetables, garden wastes, and yard trimmings can become a nutrient-rich soil amendment, known as compost, which can be used in agriculture, horticulture and urban gardening. Composting is the natural process by which a consortium of aerobic organisms degrades organic matter into a fine humus material. Several factors contribute to successful composting including small particle size, appropriate moisture and temperature conditions, oxygen provided from consistent mixing, and a nutrient balance between carbon and nitrogen. The *Student Compost Cooperative (SCC)* is a multidisciplinary campus outreach program established by Dr. Ann Wilkie (Soil and Water Science Department, UF-IFAS) that encourages resource conservation and nutrient recycling through hands-on experience with composting and sustainable farming. The SCC operates a composting facility at the BioEnergy and Sustainable Technology Laboratory, where students can drop off their food scraps and receive finished compost in exchange. The benefits of composting are far-reaching. Not only does compost enrich the soils with organic matter and improve water retention, it also significantly reduces organic waste sent to landfills and the use of commercial fertilizers, thereby reducing our reliance on fossil fuels and paving the path toward a sustainable future.

Introduction

The global concern over food security combined with depletion of natural resources and increased strain upon the environment calls for a paradigm shift to integrate food waste into the common practice of recycling. The SCC aims to provide students with a facility to compost their food waste, practice sustainable farming and engage in meaningful discussions about food security for the future. Students from multiple disciplines are encouraged to participate weekly in composting activities and to educate classmates and housemates about the exceptional benefits of composting and the long-lasting beneficial impacts on the environment.

Objectives

The primary objective of the SCC is to promote a working knowledge of sustainable food practices through a three-tiered approach which includes:

- Composting food waste;
- Producing a nutrient-rich soil amendment; and
- Providing hands-on experience with local organic food gardening.



Figure 1. Three-tiered approach to sustainable organic farming

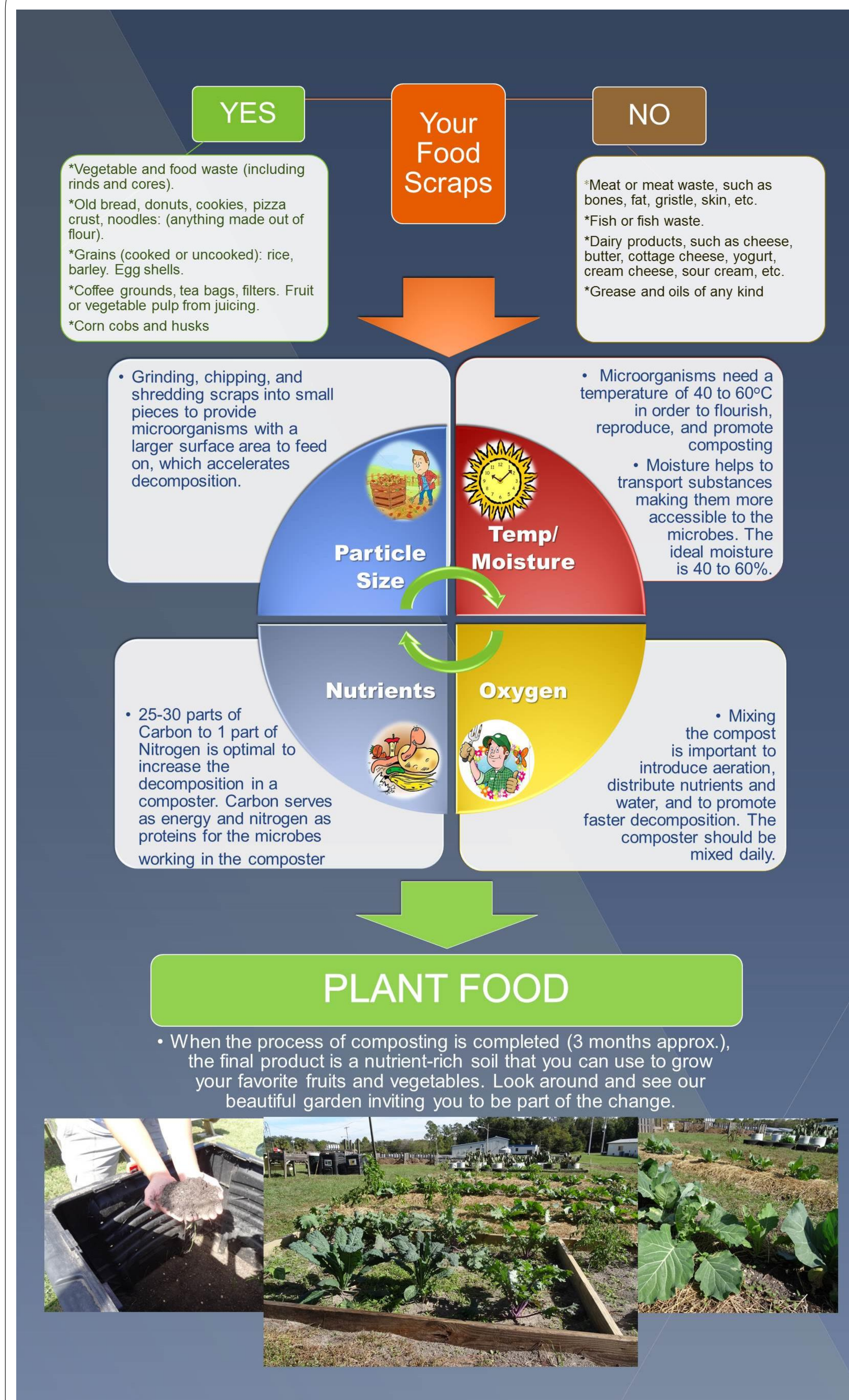


Figure 2. Major Components that Contribute to Successful Composting

Benefits of Composting

- ✓ It enriches soils with organic matter and improves water retention, making soils highly productive and able to meet global food demand.
- ✓ It significantly reduces organic waste sent to landfills; thereby, it reduces potential greenhouse gases emissions.
- ✓ It reduces the need for water, fertilizers, and pesticides for farming.

SCC Events

- Open Houses: Coordinated twice a semester to educate new members about the process of composting and to provide hands-on demonstrations.
- Field Days: Coordinated every couple weeks for students to work collectively on sifting compost, planting organic gardens and harvesting the existing fruits and vegetables.
- Tours: SCC offers tours to students interested in the further knowledge of composting and provides them with an demonstration on how they can start their own compost
- To be informed on all SCC events, please join the **SCC Facebook group: UF Student Compost Cooperative**.



References

1. Student Compost Cooperative, University of Florida, Gainesville, Florida. <http://biogas.ifas.ufl.edu/SCC/Index.asp>

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