

The Many Benefits of Composting

Animating Principles

Water harvesting and the use of rain barrels are driven by several animating principles:

- **Respect for and Harmony with Nature:** Recognizing that organic waste is not “waste” but a valuable resource that by returning it to the earth we complete a natural cycle. Working with natural processes, rather than against them helps us to both manage waste and enrich soil.
- **Stewardship:** Taking responsibility for the waste we generate and seeing it as a resource, reflecting a commitment to caring for the environment.
- **Regeneration:** Actively working to restore and rejuvenate the soil and the environment rather than just sustaining or maintaining it.
- **Community Building:** Engaging community members in composting efforts, fostering a sense of collective responsibility and shared benefits.

A Home Composting Container

- Three chamber compost bins – 68 cu ft (9ft x 3ft x 2.5ft)
- Constructed (2023) using cedar fencing boards.
- Garden waste starts in the left bin, moves to the middle bin when composting progresses, and is finally stored in the right bin ready for garden use.
- Composting temperature is monitored in each bin.
- Every 1-2 weeks the left chamber is turned.
- Every 3 -4 weeks the most composted layer in left chamber is moved to the middle chamber to make room for more garden waste.

Benefits From Using Composting

- **Waste Reduction:** Diverts organic waste from landfills and incinerators.
- **Soil Enrichment:** Adds valuable organic matter to the soil, improving its structure, texture, and aeration.
- **Water Retention:** Composted soil retains more water, reducing the need for frequent watering.
- **Natural Fertilizer:** Compost acts as a natural, chemical-free fertilizer, providing essential nutrients to plants.
- **Promotes Biodiversity:** Healthy soil, enriched by compost, promotes microbial biodiversity, essential for nutrient cycling and overall soil health.

Composting Can Also Help Mitigate Climate Change

Composting, when adopted widely, can help address the challenges posed by climate change:

- **Carbon Sequestration:** Composting organic materials helps sequester carbon, which can mitigate greenhouse gas emissions.
- **Emission Reduction:** Composting reduces methane emissions from landfills, a potent greenhouse gas.
- **Decreased Use of Synthetic Fertilizers:** Compost reduces the need for synthetic fertilizers, the production of which is energy intensive.
- **Reduced Soil Nitrous Oxide Emissions:** Compost can enhance the soil’s ability to hold nitrogen and reduce nitrogen leaching, thereby decreasing the potential for nitrous oxide production, a potent greenhouse gas.
- **Enhanced Carbon Storage in Plants:** Soils amended with compost tend to support healthier plant growth that absorbs more carbon dioxide from the atmosphere during photosynthesis.

