COMPOST: Impacts More Than You Think

Composting is the aerobic decomposition of organic materials by microorganisms. It transforms raw materials—such as leaves, grass clippings, garden trimmings, food scraps, animal manure, and agricultural residues—into compost, a valuable earthy-smelling soil conditioner.

One Person's Trash is...

...worth much more than another's black gold.

Every year, U.S. landfills and trash incinerators receive **167 MILLION TONS** of garbage.

Landfills and incinerators are dangerous. Every bag thrown out contributes to:

- Pollution of surrounding soil, air, and water
- Climate change
- Health hazards to humans and animals

> 50% of typical municipal garbage set out at the curb is compostable.

- **21%** of residential material waste is food scraps alone
- **15%** paper/paperboard
- **8%** yard trimmings
- **8%** wood waste

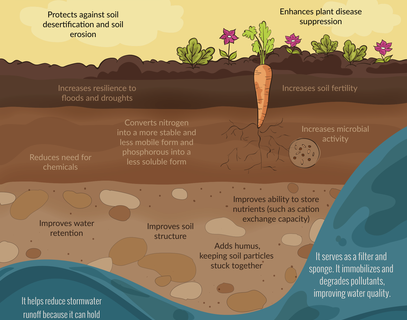
Composting Enhances Soil and Protects Watersheds

Healthy soils are essential for protecting watersheds. Compost is the best way to add organic matter—which is vital—to soils.

When added to soil, compost can filter out urban stormwater pollutants by **an astounding 60-95%**

IT'S ALL ABOUT THE SOIL

Compost improves biological, chemical, and physical characteristics of soil.



- Protects against soil desertification and soil erosion
- Enhances plant disease suppression
- Increases resilience to floods and droughts
- Increases soil fertility
- Converts nitrogen into a more stable and less mobile form and phosphorous into a less soluble form
- Increases microbial activity
- Reduces need for chemicals
- Improves ability to store nutrients (such as cation exchange capacity)
- Improves water retention
- Improves soil structure
- Adds humus, keeping soil particles stuck together
- It serves as a filter and sponge. It immobilizes and degrades pollutants, improving water quality.
- It helps reduce stormwater runoff because it can hold **~5x its weight** in water.

Composting Protects the Climate

Food scraps in landfills generate methane, a greenhouse gas with a global warming potential 84x more potent than CO_2 in the short term.

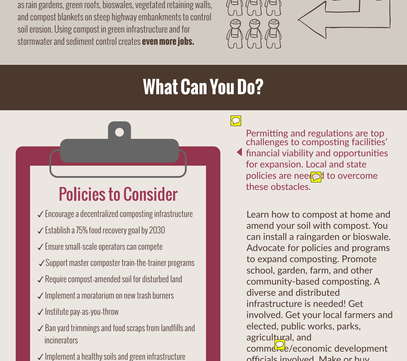
...but when converted into compost and applied to the land, compost sequesters carbon.

One research project found that ½ inch of compost applied to rangeland sequestered the equivalent of **1 metric ton of CO_2/hectare over three years.**

This level of sequestration on half of California's rangeland would offset **42 million metric tons of CO_2e**, which is equal to the annual greenhouse emissions from California's commercial and residential energy sectors.

Composting Creates Jobs

Jobs are sustained in each stage of the organics recovery cycle.



On a per-ton basis, composting employs **2x more workers than landfills** and **4x more than incinerators.**

Green infrastructure represents low-impact development such as rain gardens, green roofs, bioswales, vegetated retaining walls, and compost blankets on steep highway embankments to control soil erosion. Using compost in green infrastructure and for stormwater and sediment control creates **even more jobs.**

What Can You Do?

Policies to Consider

- ✓ Encourage a decentralized composting infrastructure
- ✓ Establish a 75% food recovery goal by 2030
- ✓ Ensure small-scale operators can compete
- ✓ Support master composter train-the-trainer programs
- ✓ Require compost-amended soil for disturbed land
- ✓ Implement a moratorium on new trash burners
- ✓ Institute pay-as-you-throw
- ✓ Ban yard trimmings and food scraps from landfills and incinerators
- ✓ Implement a healthy soils and green infrastructure initiative
- ✓ Provide grants, loans, and technical assistance to compost projects
- ✓ Establish performance-based standards for compost sites
- ✓ Support small facilities
- ✓ Implement a per-ton surcharge on all disposal facilities to fund composting

Permitting and regulations are top challenges to composting facilities' financial viability and opportunities for expansion. Local and state policies are needed to overcome these obstacles.

Learn how to compost at home and amend your soil with compost. You can install a raingarden or bioswale. Advocate for policies and programs to expand composting. Promote school, garden, farm, and other community-based composting. A diverse and distributed infrastructure is needed! Get involved. Get your local farmers and elected, public works, parks, agricultural, and community economic development officials involved. Make or buy compost!

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