

Composting is low-hanging fruit for the climate

By Linda Brown

Composting has long been recognized as one of the simplest, most impactful ways to help the climate. But just how effective is it? A new study completed for Napa Recycling and Waste Services (NRWS) found out, and the results surprised and delighted even its most ardent supporters. Here's a quick summary and food for thought.

A Rich History

"Composting is one of the oldest farming practices on earth," said Carol Glaser, a Napa-based Master Gardener, and member of Napa Climate NOW!.

The practice dates back 12,000 years. According to National Geographic ("The Green, Brown, and Beautiful Story of Composting"), stone age farmers combined household food scraps and manure to fertilize their fields. The oldest known written reference was published 2,300 years ago by the Akkadians in Mesopotamia, and composting was widely practiced by the Egyptians, Greeks, and Romans, as well as in Asia and the Americas. Shakespeare even refers to composting in his play, "Hamlet."

Multiple Benefits

According to the California Department of Resources Recycling and Recovery (CalRecycle), landfills are the state's third-largest source of methane, which is both an air pollutant and a climate "super-pollutant" – over 100 times more potent than carbon dioxide in the decade after being emitted. Organic materials casually tossed into our trash account for 20% of the state's total methane emissions.

Composting turns these materials into a valuable resource that lowers methane emissions, saves resources, rejuvenates soil, and enhances plant growth. Compost generated by NRWS is available to farmers and residents in Napa Valley.

"Whether folks are managing their own food scraps and yard trimmings in a backyard bin or taking advantage our highly-efficient municipal composting program, composting is a win-win strategy for the climate, the environment, our health, and our customers' pocketbooks," said Tim Dewey-Mattia, NRWS' Recycling and Public Education Manager.

Study Findings

In late 2024, NRWS commissioned a groundbreaking study under the terms of a CalRecycle grant and Community Benefit Agreement with local non-profit, Napa Climate NOW!. The study was conducted by SCS Global Services, an international third-party certification company specializing in sustainability and climate, under its Global Heat Reduction initiative.

First, SCS determined the 2024 carbon footprint of the NRWS recycling and composting facility in American Canyon, which composted about 66,000 tons of organic waste on-site, and processed more than 100,000 tons of recyclables on-site, from the City of Napa and the southern unincorporated county. (NRWS also handles additional organic and recyclable materials, including from other municipalities in the larger Bay Area.)

Next, SCS compared this carbon footprint to the methane emissions avoided in 2024 due to NRWS' composting efforts, on a carbon dioxide equivalency basis. The results were stunning: the climate benefits of composting offset the carbon footprint of the entire recycling and composting operation by more than *twofold!*

Then, SCS calculated the degree to which these avoided 2024 emissions will continue to benefit Napa County into the future. That's because methane emissions, once released, remain in the atmosphere for over a decade, then linger on as carbon dioxide for centuries. Preventing these emissions in the first place enables us to avoid this ongoing pollution, and its climate impacts, into the future. And these benefits multiply every year that new methane emissions are not generated.

The study findings were presented at the fall meeting of the countywide Climate Action Committee, made up of elected officials from the county and its municipalities.

"The results were really exciting," said County Supervisor Joelle Gallagher, who chaired the meeting. "It not only demonstrated the tremendous importance of composting, but made it crystal clear that increasing the composting rate throughout the county will yield significant climate dividends."

According to Dewey-Mattia, less than 40% of households in the city of Napa fully participate in the municipal composting program by composting food scraps along with their yard trimmings.

"It's time for an all-out push to get the remaining 60% of households on board," he said.

Actions You Can Take

- Compost your food scraps and yard trimmings.
- Request a free countertop compost pail.
- Attend the next Green Screen film event, February 22, 2 pm, Napa Library, focused on solutions to food waste and trash.
- Find out more about backyard composting, or attend a free Master Gardener Composting Workshop: March 28, 10AM-12PM, Skyline Wilderness Park, 2201 Imola Avenue, Napa

Linda Brown is a co-founder of Napa Climate NOW!, and Senior Vice President Emerita of SCS Global Services. She is passionate about embracing local solutions to our urgent climate crisis.

