

Case Study: Waste Diversion through Cold Composting

The Captain James A. Lovell Federal Health Care Center (Departments of Veterans Affairs and Navy) in North Chicago, Illinois, prevented 320 tons of lawn waste from going into a landfill through “cold composting.” This is the practice of mowing a lawn and leaving the grass clippings on the ground. The clippings then decompose and increase soil fertility instead of being collected and sent to landfills or a traditional composting facility.

By cold composting over the seven-month lawn mowing season, this technique helped Lovell FHCC increase its total landfill waste diversion rate from less than 18 to 39 percent. A key component of the facility’s cold composting project was creating a measurement tool to quantify the benefits of this composting technique.



The Captain James A. Lovell Federal Health Care Center.

Sustainable Materials Management

Federal Green Challenge

Key Topics

- Waste diversion.
- Cold composting.

Results

- Waste diversion increased 21 percent.
- Cold composting calculator estimates the pounds of lawn waste not sent to landfills or a traditional composting facility.
- Greenhouse gas emissions avoided at the landfill.

Facility at a Glance

- 120-acre campus with numerous buildings including a full hospital, residences and power plant.
- Serves sailors at Naval Station Great Lakes and veterans from northern Illinois and southern Wisconsin.
- Participant since 2011 in the FGC categories of energy, transportation and waste.
- Recipient of EPA National FGC Award: Transportation.
- Recipient of EPA Region 5 FGC Award: Overall Achievement and Innovation.



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Waste Reduction Increased

Called the Cold Composting Calculator, this tool quantifies the amount of grass clippings that cold composting methods leave behind. Work to develop the calculator began at the Veterans Administration Medical Center in Dayton, Ohio, and continued at Lovell FHCC.

The spreadsheet-based tool uses meteorological, climate, geographical and other data from the National Oceanic and Atmospheric Administration's National Climatic Data Center, Victory Seeds and others to calculate the amount of waste diverted in a given geographic area over a specific amount of lawn space.

To facilitate approval of this tool for use at Lovell FHCC, a white paper was written detailing the benefits of cold composting and justifying its use as

a way for the facility to meet its waste diversion goals, including the 50 percent non-hazardous waste reduction goal set in Executive Order 13514.

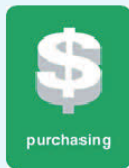
Composted grass clippings increases soil fertility. The associated energy, exhaust and greenhouse gases associated with transporting the clippings to the landfill are directly offset. It also diverts waste from the landfill. A key selling point to senior managers was that the calculator would provide the facility a way to take credit for something it was already doing, and with no additional resources.

The tool can be used nationally to help facilities capture an aspect of their activities that they might be under-reporting. For more information, or a copy of the tool, contact Joe Bozeman at Lovell FHCC.

About the Federal Green Challenge

The Federal Green Challenge, part of EPA's Sustainable Materials Management Program, is designed to challenge federal agencies throughout the country to lead by example in reducing the federal government's environmental impact. It helps agencies meet obligations under Executive Orders 13514 and 13423.

In 2012, nearly 300 federal agencies, representing more than 500,000 employees participated in the Federal Green Challenge. Their combined efforts resulted in an estimated cost savings of more than \$31 million to U.S. taxpayers.



For More Information

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Federal Green Challenge:

<http://epa.gov/fgc>