

Sustainable Acquisition Success Story

Operations Spotlight on Argonne National Laboratory

Argonne Composts Paper Towels and Food Waste

Argonne National Laboratory (ANL) has been reducing its landfill footprint, one paper towel and food scrap at a time, by developing a robust composting program that spans the entire campus! In 2015, the Illinois Sustainable Technology Center (ISTC) performed a solid waste characterization study which showed that 40% of ANL’s municipal waste stream was compostable. In 2018, ANL officially implemented the new composting program, based on the recommendations given by the ISTC. The site engages a privately contracted waste hauler to deliver all compostable trash collected from ANL to the Willow Ranch Commercial Composting Facility in Romeoville, Illinois, which is conveniently only seven miles from the campus.

At the onset of the program, ANL was only collecting compost from ten buildings on campus. However, in the first two months of operation, the site was able to collect ten tons of compostable material from those buildings alone.

ANL’s most prominent compostable waste is paper towels, so the initial phase of this program emphasized compost collection from restrooms. ANL launched paper towel composting in bathrooms in July 2018, expanding the



Photo Credit: Bathroom compost collection

composting program over subsequent years to include break rooms and kitchenettes in 20 buildings to address the next most prominent compostable waste—food scraps. During the first three years of operations, from the launch in July 2018, to September 2021, ANL’s composting program diverted 79 metric tons of compostable materials from the landfill.

Adopting a site wide composting program is no small feat, especially on a campus the size of ANL’s. One key to success is gathering the support and participation of the entire ANL community. The Sustainability Program recruited employee volunteers to serve as Composting Ambassadors to support the program’s implementation. These Composting Ambassadors helped with employee education and outreach through formal presentations, as well as by serving as a resource for coworkers. Following a training session, each ambassador is equipped with resources, including a

detailed guide with behind-the-scenes information on the composting program, presentations, as well as information sheets to distribute, and monthly updates on the progress of the program.

Another key factor in the composting program’s success is ensuring clear communication and signage. ANL states, “clear and abundant signage is critical to promote the program and educate the laboratory populations.” One example of this comes from ANL’s main cafeteria, the 213 Bistro. Signage prompts customers to leave food scraps and food soiled paper on their trays for separation behind the scenes. The implementation team chose this process for the



Photo Credit: ANL-Bistro signage

cafeteria in order to take a simple, no-mess approach. This approach reduces the responsibility of the customer and increases the accuracy and quantity of waste added to the composting waste collection.

ANL has made huge strides with the development and implementation of this campus wide composting program. While it can measure the amount of waste it diverts from landfill, it has not yet seen reduced hauling costs because trash expenses are determined by dumpster size and the number of pickups, not the amount of waste. ANL is moving to a weight-based process that will allow the sustainability team to calculate the quantity of outgoing waste generated, as well as realize cost savings from the diversion of non-hazardous waste.



Photo Credit: Compost Ambassador explaining the waste collection system.

Keys to Success

Challenge

How to continuously improve waste diversion and pollution prevention efforts to meet Department of Energy goals of diverting at least 50% of non-hazardous solid waste

Solution

Develop a composting program that can divert over 40% of the campuses municipal waste stream

Results/Benefits

- Composted materials, such as paper towels and food scraps, can be reused as fertilizer instead of flooding the landfill with them
- 79 metric tons diverted from the landfill in a 3-year period

Key Stakeholders

The Sustainability Program worked closely with Custodial Services, Building Managers, Amenities Department, Safety Team, ANL's food service contractor Sodexo, and ISTC

Lessons Learned

Large amounts of institutional waste may be compostable and thereby diverted from landfills. Composting is a team effort, and the greatest success comes from clear communication and gathering the support and participation of the entire ANL community

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