Composting at SUNY Geneseo: Potential Improvements and Investigations

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Abstract

College campuses create a large amount of landfill-bound waste, which produces greenhouse gases. By reducing the waste that enters landfills, greenhouse gas production decreases. Composting is an easy, effective way to do so, because landscaping and food waste decomposes naturally with little added effort.

SUNY Geneseo’s composting program is relatively new. Its original goal is to prevent compostable waste from entering the landfills (rather than creating a specific finished product). Here, compostable materials like landscaping waste and pre-consumer food waste are deposited in piles, and the resulting product is currently used for landscaping fill as well as in the e-Garden. If we took the time to look more closely at our compost, we could do more than just reduce the waste entering landfills.

By investigating the composition of the finished compost to determine its nutrient content, chemistry, biodiversity, or possible contaminants, we could contribute to healthier soil on campus, save money on landscaping, and possibly even make a profit by selling the finished product if it is found to be desirable. With this project I will be setting up the possibilities for future research that I intend to carry out in the coming academic years.

Composting Here at SUNY Geneseo

Composting here was begun approximately seven years ago, starting with grass clippings, leaves, and other landscaping waste. Instead of sending that material to a landfill, it was simply piled up in an unused area of campus to decompose naturally. Soon after this initial step, pre-consumer food waste also was added, diverting even more waste from entering landfills. Now there are also green buckets (pictured below) available to collect post-consumer food waste from nearly every building on campus.

Currently the composting program is a collaborative effort between the office of sustainability and the facilities and maintenance workers. Students who work with the office of sustainability collect the buckets weekly and weigh them as a means of keeping track of production. The food waste from the buckets is combined with the landscaping waste in piles to the west of SUNY Geneseo’s e-Garden (pictured to the left).

The waste is left to decompose, and as it cooks down it is pushed to the side (pictured to the left, bottom). The finished product is currently used on campus both as landscaping fill around pathways and trees, and as a means to grow a small volume of vegetables in the e-Garden that contribute to the food students consume on campus.

Questions

- How might SUNY Geneseo’s compost compare to industrially produced compost, backyard compost, or the local soil?
- How does SUNY Geneseo’s composting and waste management program compare to those at other schools?
- What steps could be taken to improve its quality, or divert even more food waste from the landfills?
- Would this potential excess of quality compost be marketable in the future?

Background Information

I believe that it would be beneficial to study the nutrient content, chemistry, biodiversity, and possible contaminants of the compost here. Western Kentucky University greatly expanded its composting program recently with good results, and the design of their program is a good model for other universities to consider when revising their waste management programs.

The most effective waste management programs are the most streamlined ones, which make use of carefully crafted development plans as well as a workable budget to get the project off of the ground. Many universities that are currently incorporating composting into their waste management programs have a specific timeline for their projects that allows time to educate the college’s community about sustainability and the upcoming changes to the system.

However, there is also something to be said for more grassroots-style efforts like the composting program here at SUNY Geneseo. Currently the program’s primary goal is simply to keep as much waste out of the landfills as possible, which aligns nicely with the college’s commitment to be zero-waste by 2050.

Key Points

- Waste management programs at universities all over the country can be improved by developing and then properly funding and implementing well-planned strategies for increased sustainability.
- SUNY Geneseo’s composting program has come a long way since its conception, and is successfully diverting thousands of kilograms of waste per semester from entering landfills.
- SUNY Geneseo could expand and improve its composting program both by using more efficient methods to process the waste faster and by testing its final product in various ways to determine its benefits and drawbacks. Subsequently, with a standard of quality and an increase in production, the college may eventually be able to sell the finished product for consumer use.

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References


