

Implementing Food Waste Composting on University Campus

Introduction

- We noticed that the food waste is not separated from other waste thus causing more pressure on resources.
- Although food waste is organic and will generally decompose, when mixed with other materials and put into landfill, food waste can contribute to the production and release of harmful gases which potentially cause environmental damage.
- However, by composting your food waste, you can actually use it to put goodness back into the earth

Exploring the issue of food wastage on most university campuses

Food wastage on campuses is a pressing issue with environmental, social, and economic implications. Universities have a responsibility to lead sustainable practices. Addressing food wastage aligns with environmental sustainability goals, promotes social responsibility, and makes economic sense. Through awareness campaigns and policy changes, universities can pioneer a more sustainable and equitable food system.

Let's take an example to understand the problem!

In Lovely Professional University, Phagwara, an approx of 2 drums carrying 200 kg food each, gets wasted on a daily basis. Yes, you heard that right. 200 kg EACH !!

This amount of food wasted would be enough to feed a large village.

This data along should be an eye opener and initiate a sense of responsibility towards the society and the planet.

Why do people waste so much food?

There could be various reasons for such wastage of food:

- *Over Portioning:* Cafeteria servings often exceed students' appetites, leading to uneaten food.
- *Limited Time:* Busy schedules may force students to grab more food than they can consume in a short timeframe.
- *Lack of Awareness:* Many students are unaware of the environmental and social impacts of food wastage.
- *Buffet Mentality:* All-you-can-eat dining options can encourage excess consumption.
- *Limited Storage:* Dormitories may lack proper storage facilities, prompting students to discard perishable items.
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An effective solution to this problem in brief

To get started with the solution let's understand it in *brief*.

1. Introduce composting stations with additional bins for food waste.
2. Compostable items include fruit/vegetable scraps, grains, bread, rice, pasta and coffee grounds.
3. While acquiring composting machines may incur a significant upfront cost for the university, it's a one-time expenditure. Over time, the savings from reduced waste management and fertilizer expenses can offset the initial investment.
4. Campus gardens and green spaces can benefit from the compost, fostering sustainability and reducing the need for chemical fertilizers.
5. This project would promote sustainability culture on campus.



Leveraging Problem Tracking & Data Analysis

- Implement a data collection system for food waste, composting, and environmental metrics.
- Measure composting rates to assess effectiveness and identify improvement areas.
- Quantify environmental benefits like reduced greenhouse gas emissions and landfill methane generation.
- Track composting data to identify trends and patterns over time.
- Gain insights for informed decision-making and continuous improvement in sustainability efforts.

Here are some key techniques which can help to ease the Data collection and Analysis process for composting:

In a composting program, several key metrics should be tracked to evaluate its effectiveness and inform decision-making for ongoing improvements. These metrics include:

- 1. Compost Quality Index (CQI)**
- 2. Waste Diversion Rate (WDR)**
- 3. Customer Satisfaction Score**
- 4. Compost Sales Growth Rate**
- 5. Average Processing Time per Ton of Waste**
- 6. Cost per Ton of Waste Processed**
- 7. Market Share Percentage**

By tracking these metrics, composting programs can evaluate their performance, identify areas for improvement, and make data-driven decisions to drive success.

Potential Strategic Plan

- Mission: Promote sustainability, reduce food waste.
- Vision: Composting integral to campus culture.
- Objectives: Reduce waste, establish stations, educate.
- Market Analysis: Identify, assess, analyze.
- Strategies: Partner, tailor, educate, support.
- Implementation: Pilot, scale-up, monitor.
- Resources: Budget for equipment, personnel, marketing.
- Performance: Track KPIs, evaluate, solicit feedback.

Conclusion

The university Campus Composting Initiative represents a holistic approach to addressing food waste and promoting sustainability within higher education institutions. By implementing composting infrastructure, fostering a culture of responsible consumption, and providing education and support, this initiative not only reduces environmental impact but also cultivates a sense of environmental stewardship among students, staff, and faculty.

Through collaboration, innovation, and continuous improvement, we can create campuses where composting is not just a practice but a fundamental aspect of campus culture, contributing to a more sustainable future for generations to come.