



REVOLUTIONIZING WASTE MANAGEMENT IN EDUCATION:

The BioSpeed Composting Solution

Turning Organic Waste Into Learning Opportunities

THE URGENCY OF SUSTAINABLE WASTE MANAGEMENT IN EDUCATION

As the world grapples with escalating waste disposal challenges, some educational institutions are beginning to take the lead in sustainable waste management practices. **K-12 schools**, in particular, have the potential to not only drastically reduce landfill waste, but also **inspire the next generation** of environmental stewards. For the students and faculty of Wellington Middle School, the BioSpeed M1 – an on-site, in-vessel, aerobic composting unit transformed the landscape of organic waste management of their entire district.



**THE BIOSPEED SOLUTION:
A TECHNOLOGICAL
LEAP FORWARD**

The BioSpeed M1 is not just a composting unit; it's a cutting-edge tool that **redefines our relationship with waste management.**

It operates using a state-of-the-art computing system and high-grade components with a simple, but robust design that facilitates operation, maintenance, and optimizes performance.

This system **mimics and improves on the natural decomposition process.** The system's design also virtually eliminates the need for constant operator input, **enabling a complete composting cycle within 24 to 72 hours.**

THE RESULT? A reduction of **70-90%** in waste volume, all while ensuring safety and efficiency through its practical operation.



“We’ve really tried to push the machine...

They’ve handled whole pizzas, chicken bones... they fully compost.”

Trudy Trimbath - District Energy Sustainability Manager

A CASE STUDY IN SUSTAINABLE INNOVATION

Wellington Middle School is nestled in the Poudre School District of Fort Collins, Colorado, and now serves as a testament to the transformative power of the BioSpeed solution.

In the fall of 2018 a student population of 575 and a faculty of 40 embraced the BioSpeed M1 for their organic waste management problem.

The school, however, didn't just adopt a composting unit; they integrated a sustainable lifestyle into their education approach.

A key factor behind their success was personalization.

From the start, students named their BioSpeed unit "Svein" after a Norwegian BIOCOTECH engineer, and in doing so the school created a sense of ownership and excitement. Svein's naming was soon quickly enhanced by student engagement initiatives, including custom t-shirts and a pledge board, fostering a sense of pride and participation.



STUDENT INVOLVEMENT
AND CURRICULUM
INTEGRATION

At Wellington Middle School, **students play the key role in the BioSpeed's composting process.**

A dedicated year-long leadership class of **around 20 students** oversees waste separation during lunch periods. Every week, a class member oversees waste separation during lunch, reinforcing and ensuring responsible waste disposal. After lunch, the organic waste is collected and brought to feed Svein, their BioSpeed Unit.

A select group of SOP-trained (Standard Operating Procedures) students from the leadership class empties the day's waste into Svein using the hydraulic lift. **The process takes just around 10 minutes at the end of the day**, taking up little-to-no time from their school activities. Students also log daily details to monitor the composting process, its effectiveness and impact.


While the composting unit wasn't integrated into the formal science curriculum, **it seamlessly aligns with the State of Colorado's science education standards.** Concepts such as plant life cycle, biotic and abiotic environments, photosynthesis, and cellular respiration come to life through the BioSpeed unit, offering tangible, sustainable, and practical learning experiences. The success at Wellington Middle School even sparked interest from neighboring districts, eager to witness the BioSpeed's technology in action. *They've since been receiving frequent visits to showcase the waste management program.*



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CULTIVATING GREEN LEADERS

IMPACT AND ACHIEVEMENTS:



Wellington Middle School
National and Colorado
"School to Watch"
2012-2018

Wellington Middle School
**National
Green Ribbon School**
Inaugural Year, 2012

IMPACT AND ACHIEVEMENTS:

CULTIVATING GREEN LEADERS

Wellington Middle School's adoption of BioSpeed yielded impressive results. Not only did the school achieve a **100% ORGANIC WASTE DIVERSION RATE**, but it also earned recognition as a **Green Ribbon School**, boasting the highest diversion rate in the district.

Beyond the numbers, the BioSpeed's impact on students is hard to measure. The unit not only reduces waste but also transforms attitudes. As shared by Bill Peisner, a school counselor and composting lead at WMS, one student's perspective shifted dramatically after witnessing the composting process.

"The students have really taken ownership of the process and one student even changed [their] attitude towards school entirely... If the composter can achieve this with only one kid, it's worth it."

Bill, Head Counselor at WMS.



SCALING SUSTAINABLE SUCCESS

The BioSpeed MI's success at Wellington Middle School is just the beginning. Expert insights and support from Trudy Trimbath and Bill Peisner continue to offer valuable guidance to educational institutions eager to incorporate BioSpeed technology into their own waste management systems.

With the BioSpeed unit's proven ability to drive waste reduction, student engagement, and curricular enhancement, **the program encourages other schools to embrace this solution and improvement to their daily operations.**



EMBRACING A GREEN FUTURE

The BioSpeed MI's integration at Wellington Middle School underscores the potential of innovative technology as a catalyst of transformative change. By offering a practical solution that not only reduces waste but also nurtures environmental consciousness among students, the BioSpeed empowers schools to become environmental stewards by implementing bold and innovative sustainable practices.

With valuable insights from seasoned educators, **the journey to replicating Wellington Middle School's success with BioSpeed becomes an attainable reality** for many others. As educational institutions worldwide seek to shape responsible citizens and stewards of the planet, the BioSpeed composting unit will continue to stand as a beacon of green transformation and a blueprint for a greener future.

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