



COMPOSTING PERSPECTIVES

TECHNOLOGY · TECHNIQUES · HELPFUL TIPS

OCTOBER 2007

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Waste into Wealth Generation

How Mark Ringenberg Made a Challenge into an Opportunity

Mark Ringenberg had a good source of cheap sawdust for his composting business. Suddenly that source dried up. When Ringenberg went to investigate, he was told by his supplier that the local steel mill was paying good money for it. "What are they using it for?" Ringenberg asked. His supplier didn't know anything more than that they paid well.

Ringenberg later met some people from the steel mill and they invited him out to see what they were doing. The mill produces a great quantity of non-hazardous liquid waste ranging from oils, fats, and non-heavy metals, and they couldn't take it to the landfill in liquid form. They were using the sawdust to soak up the liquid waste so that the landfill would accept it. "I was scheming as soon as I saw it," Ringenberg said. He told the owners of Steel Dynamics, Inc., that he would like to take the sawdust back and compost the waste. The Indiana Department of Environmental Management allowed SDI and Ringenberg to do a test run with a thousand cubic yards of compost.

Using windrows turned with his nine-year-old Aeromaster PT-120 from Midwest Bio-Systems, Ringenberg was able to turn SDI's waste and sawdust into high-quality compost with all of the chemical waste from the steel mill completely neutralized. The final product was tested and had the right zinc and phosphorus levels to make it ideal for golf courses.

Ringenberg and SDI are awaiting approval from the Indiana Department of Environmental Management to expand their project. "We're having to fight the government with the government," Ringenberg said. Though projects like Ringenberg's are becoming increasingly popular, many state agencies have yet to break out of the waste-to-landfill paradigm. *CONTINUED >>*

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EDITORIAL CORNER



BY ERNEST BLOSSER, VICE PRESIDENT, MIDWEST BIO-SYSTEMS

On these cool mornings it is exhilarating to see the steam rise as we turn the compost. The white gas we see rising is steam. CO₂ is heavier than the air we breathe, so it escapes at the bottom of the windrow if we properly treat and separate the particles and generate a gap behind the drum.

Have you considered some alternative uses for your compost turner?

1. Bioremediation is a big one. There is a lot of soil that has become contaminated. Some of the contamination has occurred over a period of many years. Other contamination is the result of a sudden disaster — maybe a fuel spill. One local fuel spill was recently packaged in 55 gallon drums by the fuel company and shipped out of state to a toxic landfill for an enormous price. It could have been bioremediated with micro-organisms and a turner for a small percent of the cost! Even though they have paid a high price to dispose of their waste in a toxic landfill, the above-mentioned fuel company is responsible for the next 100 years if the barrels should ever spring a leak. Micro-organisms could have rendered the waste benign, and removed the fuel company's liability.

2. "Safe Bedding" is another profitable use for your turner. Dairy and poultry litter can be sanitized and inoculated with beneficial organisms that combat disease. This provides a better and more comfortable environment for livestock as it lowers the amount of ammonia and other odorous gases that negatively affect the animals. It also saves the cost of incoming bedding material.

3. One university rented their Aeromaster Compost Turner to the Department of Transportation for mixing sand and salt. The DOT found this to be much more efficient than an end loader, due to the turner's superb mixing capabilities and high capacity.

While composting is the most frequent use for your turner, you may find other uses bringing in additional revenue. Think about it!

(CONTINUED FROM FRONT PAGE)

Ringenberg is working with the Indiana state legislature to push through the project.

Once approval does come for an expansion of the project, Ringenberg plans to make his SDI compost a part of his already thriving composting business. "We haven't worked out the business model yet," Ringenberg said, but it could result in revenue streams from SDI paying Ringenberg to dispose of their waste, and additional revenue from the sale of the compost.

Ringenberg's project with SDI, his ongoing yard waste composting business, and his growing partnerships with local farmers looking for a way to dispose of their manure is pushing Ringenberg to look at new equipment. After seeing a demonstration of one of Midwest Biosystem's self-propelled turners, Ringenberg is planning on ordering a custom-built turner for his business.

Mark Ringenberg's composting business is one more example of growth opportunity that comes to those who are willing to be creative in turning waste into wealth generating solutions.



Bioremediation:

Turning dangerous waste into profitable opportunity

Mark Ringenberg's project with SDI (see front page) is an example of **bioremediation**, the process by which microorganisms are used to neutralize waste and harmful substances in the environment.

Bioremediation has been around for centuries, but it is increasingly being looked to as an environmentally friendly alternative to traditional waste.

Microorganisms have been used to do everything from clean up oil spills to desalinate fields.

As sustainability becomes an increasing priority for people, bioremediation is one of the greatest opportunities for composters.



Tips About Bioremediation...

Critical issues to consider:

- Know *what* the contamination is and at *what levels*.
- Know *what percentage* of *what ingredients* is needed to decompose the contamination properly so the "bioremediation specific" microorganisms can perform effectively.
- Familiarize yourself with *particle management* — in terms of decomposition, aeration, moisture, proper temperature, and microorganism functions.
- In bioremediating soil that is tight, or contains large chunks, you will find that the Aeromaster's ability to rise out of the pile can be put to good use by partially raising the turner for the first or second pass. Having the right micro-organisms functioning properly is very beneficial in bioremediation!
- There is a special additive available from Midwest which includes active carbonic chains, enzymes, and specialized microorganisms.
- If you expect significant use of equipment for bioremediation, you may want to consider a specialized turner, which MBS has designed with modifications to adjust for the requirements of extended use in the unique materials used in bioremediation applications.

Have a safe and prosperous composting season!



**Create Highly Effective
Humified Compost**

**Advanced Composting
System Workshops**

Upcoming Workshops

November 6-8, 2007, Georgetown, KY

November 7-9, 2007, Bogota, Colombia

March 11-13 2008, Sonora, CA

March 18-20 — Myerstown, PA

ACS Compost Workshops provide training in the best methods for converting agricultural waste and organic matter into highly effective organic fertilizer.

ACS Compost Workshops are located near compost production facilities that practice the Advanced Composting System principles. During visits to the compost site, we will demonstrate what was taught in the classroom in a **real work environment**. Our updated curriculum expands the **hands-on** time at the compost site to increase the confidence level of participants so that they can go home and produce highly effective organic compost. Compost site **demonstrations** include windrow building, compost turning, watering and microbial inoculation techniques, and the use of compost process monitoring instruments. The sessions also include production **troubleshooting** as well as the tips on increasing compost quality **without increasing the cost**.

“ The MBS Workshop covered a wide range of composting topics from the nuts and bolts of how to produce high quality compost to the microbiology that drives the true value of humified compost. The workshop leaders taught with a true passion and their years of experience in the industry were reflected in their teaching. My expectations were exceeded and I could not have been more pleased. ”

*Nathan Kemper,
Research Program Associate
Agricultural Economics and Agribusiness
University of Arkansas
Fayetteville, Ark.*

It is the combination of classroom instruction and compost site work that make the ACS Compost Workshops an effective way for you to get started or improve your existing operations.

Seating is limited — Register today!

**Contact us today for
pricing information:**

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Midwest Offers Advanced Composting System Direct Support Package

The MBS Advanced Composting Support Package includes all the necessary ingredients to help you get a jump-start on turning your compost into cash. The package not only includes the physical elements, such as inoculants and parts discounts, but also puts the extensive expertise and experience of the Midwest Bio-Systems team at your disposal. By purchasing the ACS Support Package, you'll have access to the following:

- **Inoculant** — To accelerate your composting process
- **Workshop** — To keep you up-to-date on composting
- **Site visit** — To help you continue to improve and refine your output and operation
- **Recipe program** — To help you reach your goals with the available materials
- **Recipe support** — To guide you through changing situations
- **Operations support** — To help make sure you're getting the most out of your investment
- **Parts discount** — To save you money
- **Consulting discount** — Means you'll never be afraid to get the help you need
- **Trade-up priority** — For when you're ready to expand

Now you can take advantage of Midwest Bio-Systems' Advanced Composting System as part of a sustained, organized program with direct support from the MBS team of experts. Contact us today at **1-800-689-0714** or on the Web at **www.MidwestBioSystems.com**

Midwest Bio-Systems

Worldwide Distributor Network



New Self-Propelled Compost Turner Now In Operation



SP-170 a Model of Efficiency and Advanced Technology

The first new SP-170 compost turner is now in service, according to officials from Midwest Bio-Systems (MBS), the leading composting systems company. Several years of design, production, and testing have resulted in the largest unit ever offered as an integral part of the Advanced Composting System.

The drum and tines use the proprietary design MBS has been producing and improving for the past 15 years. This design results in treatment of every particle in the windrow, resulting in the highest possible composting efficiency and effectiveness. The self-propelled capabilities maximize space and labor productivity due to high windrow capacity and narrow spacing possibilities.

Moisture control, another key quality element, is assured by the available water system and hose reel in a one man operation. The cab-forward design results in high visibility, and the sophisticated controls and low operating cost make this unit ideal for the largest operations.



“Customers came to us because they had tried other self-propelleds and weren't getting the desired results,” according to Edwin Blosser, owner and president of MBS. “So we worked with a small number of progressive operations to define and design what they needed in a large self-propelled unit. The result is the SP-170, which we are very pleased of.”



Midwest Bio-Systems, located in Tampico, Illinois, provides its



Advanced Composting Systems to customers around the world. Midwest is involved in every aspect of the composting business—building equipment, developing new technologies, consulting, and performing soil application research.

Midwest Bio-Systems Announces Partnership with Cedar Crest



Midwest Bio-Systems recently announced a distribution partnership with Cedar Crest Equipment in Myerstown, Pennsylvania. This combination delivers Midwest's Advanced Composting System, including the industry's leading composting equipment, to growers throughout Pennsylvania. This value is enhanced by Cedar Crest's experienced delivery team, including soil and fertility expertise second to none.

According to Anthony Good of Cedar Crest, "We see a high value in helping farmers create a compost product as a fertility boost. As one of the most respected names in the composting business, Midwest is a natural choice to join with us in coming to the aid of the producer."

Midwest Bio-Systems delivers frequent workshops around the world to educate and assist composters and potential composters, and plans are in the works for Cedar Crest to host additional workshops in Pennsylvania.

Edwin Blosser, owner and president of Midwest Bio-Systems, said, "We have had some relationship with Cedar Crest for several years now and appreciate their focus on helping the farmers. This is an area we believe in strongly and we are glad to add them to the growing list of full service dealers."

Cedar Crest Equipment is located at 61 Elco Drive, Myerstown, PA, 17061, in the heart of Lebanon County.

Midwest Partners with Bevins Motor Co.

Midwest Bio-Systems recently announced a distribution partnership with Bevins Motor Company in Georgetown, Kentucky. This combination delivers Midwest's Advanced Composting System, including the industry's leading composting equipment, to the heart of Thoroughbred country. Bevins Motor has been serving the area for over 60 years, and there are also several Midwest customers already among the equine community.

According to Andrew Cecil of Bevins Motor, "We've always been pleased with the systems and support Midwest provides. We believe this arrangement will allow us to help even more of our customers, and do so even more effectively."

Plans are underway for a November 6-8 workshop delivered in Georgetown by Midwest Bio-Systems to educate and assist composters and potential composters. This workshop has been honed and refined in delivery over 50 times around the world.

According to Edwin Blosser, Owner and President of Midwest Bio-Systems, "We first became acquainted with Bevins Motor several years ago as they assisted us in serving several customers in the area. Their knowledge of the local needs and people are invaluable in helping potential composters especially among the more progressive stables."

Bevins Motor Company is located at 1175 Lexington Rd, Georgetown, KY, 40324, in the heart of the Bluegrass State.



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Look for us at these upcoming Trade Shows!

October 2-6, 2007 — World Dairy Expo
Alliant Energy Center of Dane County
Madison, Wisconsin

October 16-18, 2007 — Wastecon
Reno Sparks Convention Center
Reno, Nevada

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Composting Perspectives

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