Composting Roundup

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Austin, Texas
Biosolids Composting Facility Expansion

The City of Austin's Hornsby Bend Biosolids Management Plant has been composting digested solids with ground yard trimmings since 1989. Last year, a new 15-acre pad was constructed, doubling the size of the composting area. Yard trimmings (about 120,000 cubic yards/year) are collected by the city solid waste department, and brought to the Hornsby Bend facility, where they are processed in a Diamond Z grinder. "We mix by volume in roughly a 2:1 ratio of amendment to biosolids, which are about 18 to 25 percent solids," says Jody Slagle, Compost Manager. "Windrows are 500-feet long and about 6-feet high. In the summer, we make the mix a little richer because we don't add water to the windrows." The facility has two SCARAB turners, one for the active composting phase and one for curing.

Dillo Dirt, the finished product, is sold in bulk for $12.40/cy. It then can sell for as high as $25 to $30/cy retail. Currently, about one-third of the biosolids produced are composted. The remainder is land applied as a Class B product to fertilize 500 acres of onsite hay fields; a portion goes off-site for land application on a farm. "With the new pad, we are hoping to compost about half of the biosolids generated," say Slagle. "Land application is actually more expensive for the city than composting. The economics are better producing a Class A compost." He estimates about $650,000/year is spent to operate the composting facility. Revenues from sale of Dillo Dirt are about $400,000/year.

Ithaca, New York
Researching The Suppressive Qualities Of Vermicompost

Researchers at Cornell University report that vermicompost added to potting mix may help protect seeds from the mobile spores of a pathogen that has been a particular problem for greenhouse growers. Building on previous research by professor Eric Nelson's research group in the Department of Plant Pathology and Plant-Microbe Biology, Cornell PhD candidate Allison Jack found that beneficial microbes in the vermicompost colonize the surface of seeds and release a substance that interferes with the chemical signaling between the seeds and the mobile spores of Pythium aphanidermatum. "We know that microbes are actually adding something the zoospores don't like," Jack told Cornell's Chronicle. (Zoospores are asexual mobile spores that use a tail-like protrusion for propulsion.) "Now we just have to find out what it is."

Eric Carr, a master's student in Nelson's lab, is focusing on the suppressive qualities of vermicompost on a different stage of the life cycle of *Pythium aphanidermatum*, a pathogen responsible for seedling damping off (withering at the soil line) shortly after germination.

While research has documented that certain composts can suppress disease, what's still unknown is which of thousands of undescribed microbes in healthy compost are responsible for suppressing which diseases. To help crack that code, Jack teamed up with New York vermicomposter Tom Herlihy, whose company Worm Power produces 2.5 million pounds of vermicompost a year using dairy manure. Because the dairy manure is a relatively consistent feedstock and his vermicomposting process is controlled, the business presents an excellent opportunity for experimentation. "Most seeds are treated in this country with chemicals," Herlihy said. "If we know our vermicompost can suppress Pythium, wouldn't it be nice if we could come up with a vermicompost-based solution, rather than a chemical one?"

Charleston, South Carolina
New Business Offers Organics Pick Up

Recently launched, Food Waste Disposal offers businesses an economically feasible and environmentally friendly alternative to sending food residuals and other organic waste to the landfill. The new business supplies clients with collection bins and transports the collected organics to Charleston County's Bees Ferry Landfill Compost Facility, the first in the state to initiate a food waste composting pilot program. Food Waste Disposal offers the service, at a cost comparable to traditional waste disposal, to restaurants, hospitals,

grocery stores, schools or any business/organization looking to reduce the amount of organic waste sent to landfill. Learn more at www.wastefwd.com.

Kansas City, Missouri
University Steps Up To Plate To Recover Food Waste

The University of Missouri-Kansas City (UMKC) is striving for zero waste in its dining hall operations. UMKC Sustainability Coordinator Kay Johnston participated in a recent US EPA webinar entitled "Food Recovery at Universities and Colleges," relating what the school is doing toward that end. The university recently signed up for EPA's Food Recovery Challenge, established to help organizations improve their bottom line while feeding people and protecting the environment. And several years ago, UMKC began working with food service vendor Sodexo and Missouri Organic Recycling's FRED (Food Residual Environmental Diversion) program. "In 2008, we contracted with Missouri Organic to provide bins and haul away our compostables," says Johnston, adding that partnerships have been critical to meeting the school's zero waste goals. In 2010, UMKC formalized its zero waste goal and offered composting services throughout the campus.

In addition to the Sodexo and Missouri Organic, partners include the Campus Garden Collective, where a small-scale composting project serves as a laboratory as well as an example for students. The campus facilities lawn and landscaping department is an additional partner. "It's not just an initiative by one person or one department, there are a lot of people involved," Johnston told webinar participants. And that is critical to the program's success, she says, as has been dining staff training. "It's really important to get everyone on board."

As far as managing preconsumer food waste in the back of the dining halls, Johnston explained that each sous chef has a 5-gallon collection bucket for organics. These are emptied into five 96-gallon toters with biodegradable liners that get picked up once a week. Compostable serviceware is utilized in the front of the house and plate scrapings are diverted to composting. Peer-to-peer education and signage help deliver the message that just about everything can be recycled. Plastic straws were an initial contamination challenge as were single-serving condiment packets, which the local health department had required in lieu of bulk packaging. "The health inspector said we couldn't go with bulk packaging, but the [Kansas City] Department of Environmental Services also had a zero waste goal, and we were able to negotiate having condiments in bulk." A sneeze guard provided the solution. Paper straws, although a little more expensive than their plastic counterpart, provided the other contamination solution.

Lorain County, Ohio
Fostering Community Gardens

Late last spring, Ohio community organizations and volunteers gathered to "Serve Lorain County a Garden" by distributing a Filtrexx GardenSoxx kit filled with compost media, as well as 20 plants, a watering can, a recipe book and a gardening guide, to low-income families. A total of 750 gardens were given in 2011's Family Garden Initiative program, helping to feed around 2,000 people. The program began in 2010 as a service project through the Church of the Open Door in Elyria, Ohio, and the Filtrexx Foundation in Grafton, Ohio. Each garden is capable of producing 80 to100 pounds of produce in a growing season. "The gardens have added a greater sense of community and brings people together," says Dawn Sommer of Faith House, a housing program for single-parent homeless families that received 11 gardens for its facility.

Because of the many difficulties of gardening traditionally in urban cities, the Family Garden Initiative uses the 2-foot long filled mesh socks that can be placed on any surface that may be available, including impervious surfaces such as asphalt or concrete. The system is also designed to require minimal maintenance because weed seeds rarely blow through the mesh into the compost. More details can be found at www.FamilyGardenInitiative.org.

Stamford, Connecticut
USCC, Keep America Beautiful Partnership

National nonprofits Keep America Beautiful (KAB) and the U.S. Composting Council (USCC) aim to increase waste reduction through composting by collaborating on education and activities nationwide. The organizations plan to share educational resources to promote awareness of composting's role in reducing waste, improving soil structure and water quality, and reducing soil erosion. "Teaming up with KAB to share resources and promote our complementary messages of diverting organic materials from the waste stream and into compost will be of great benefit to local communities and the environment," says Michael Virga, USCC's Executive Director.

Greenfield, Massachusetts
Recycler Of The Year Composts On Lunch Break

Amy Donovan, program director for the Franklin County Solid Waste Management District, has been given the Gold Award for Recycler of the Year by MassRecycle, the state's recycling coalition. The recycling award recognizes individuals and organizations for exemplary service in reducing waste. Donovan is so committed to the task of recycling organics that she reportedly spends many of her lunch breaks collecting compostables from school cafeterias within the Gill-Montague Regional School District. "I'm very glad to receive this award because it gives the spotlight to the work I've been doing that is very important," Donovan told The Republican, a local newspaper. To keep organics from the mouths of incinerators and landfills, Donovan's projects have included establishing a recycling and composting program at the Franklin County Fair and founding the Shelburne Falls Compost Collaborative. She also set up an organics drop-off program at four municipal transfer stations.

Denver, Colorado
Connecting Food Waste And Soil Fertility

When Denver area Waste Farmers began composting three years ago, it operated with a pickup truck and processed about 1 ton/month of feedstocks into compost. Today, the company is processing about 300 tons a month, and produces agricultural inputs like fertilizer, potting soil, worm castings, and compost tea. The company's objective is to create a closed-loop system that encompasses organic waste collection all the way through food production, and in doing so, create stronger market demand for high-quality compost. If all goes well, the model will be replicated in other cities.

Dan Matsch of Eco-Cycle, a nonprofit recycling and zero waste service provider in nearby Boulder, Colorado, says that both Waste Farmers and Eco-Cycle are trying "to create an association in people's minds between food waste and soil fertility." Waste Farmers products are currently sold in bulk, and the company plans to move into the retail home and garden market this year.

Tags: Biosolids, Food waste, Organics

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