

## What Works

### **Garden-Variety Revolution: TerraCycle turns what others leave behind into fertilizers and fashion.**

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## Garden-Variety Revolution

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Of earthworms Charles Darwin wrote, "It may be doubted if there are any other animals which have played such an important part in the history of the world as these lowly organized creatures." With the help of a talented social entrepreneur, hard work, and good luck, earthworms are making history again at TerraCycle Inc. in Trenton, N.J. The eco-friendly gardening supply company, which turns worm castings into organic liquid plant fertilizer, is growing faster than a wonga wonga vine (*Pandorea pandorana*) in springtime. It's also affirming the green movement's place in mainstream business.

TerraCycle not only takes worm castings – the technical term for worm poop – and makes organic plant food, but also uses recycled soda bottles and other recycled containers to package all its products. Although the company purchases most of its recycled packaging from professional suppliers, it also reimburses charities and schoolchildren for sending in their recyclables. TerraCycle buys the castings from independent worm farmers around the country and then brews them in big tanks at a Trenton facility called "the worm gin." "Better, greener, cheaper" is the company's motto.

The company's natural market is home gardeners – especially those worried about the safety of children and pets – and so it originally sold its products online. But national chains like Wal-Mart, Target, Whole Foods, and Home Depot are now embracing TerraCycle. Its products are on the shelves of more than 10,000 stores around the United States and Canada. And its sales have multiplied from \$70,000 in 2004 to \$500,000 in 2005, \$1.5 million in 2006, and an estimated \$4 million in 2007.

This year, says co-founder and CEO Tom Szaky, TerraCycle expects to turn a profit with a projected \$8.6 million in sales. The company will also expand its recycled product line to include composters and rain cisterns made out of recycled wine barrels (\$99 each), as well as tote bags and pocketbooks made from recycled juice pouches (\$8 to \$15).



TerraCycle CEO Tom Szaky runs a lean operation, using earthworms, recycled packaging, and low-rent facilities in Trenton, N.J., to make organic garden products.

### The Worm Turns

Earthworms are the original recyclers. They eat garbage, shred plant residue, and then spread the broken-down matter as they burrow into the ground. Their excrement is even richer in nutrients than the organic matter they digested. The worms also mix and aerate the soil, improve its drainage, and provide channels for roots to take hold.

Farmers, foresters, and serious gardeners have long known about the fecundity of worm castings. There's even a trade magazine based in Cleveland called *Earthworm Digest*. But it took Szaky's combination of ambition, charm, and personal history to realize the worm poop's potential.

The only child of two Hungarian doctors who immigrated to Toronto when he was 9 years old, Szaky has only fleeting memories of Soviet-era Hungary: One is the small, four-cylinder "Trabi" that his family drove. The other is the nation's overwhelming poverty, fatalism, and lack of opportunity at the time. In his family's new home, he says, "anything is really possible as long as you work hard."

Szaky did work hard, and enrolled in Princeton University for his undergraduate education. But he dropped out in 2003 to start TerraCycle after admiring a friend's robust marijuana plants and finding out what he fed them. "I don't view myself as an environmentalist. I view myself as an eco-capitalist," he says. As an example, he offers the fact that he doesn't drive a Prius, but the '95 Acura in which he left home.



Szaky's strongly capitalist streak is apparent in his strategic verve. The idea of mass-marketing organic plant food in recycled containers was foolproof, says Amy Stewart, a blogger and author whose critically acclaimed book about earthworms is called *The Earth Moves*. "People intuitively grasp that worms are good and worm castings are a good thing to feed plants, so there's no leap the consumers have to make," says Stewart. "The other thing about the product is that, unfortunately, organic fertilizers have a bad reputation for smelling bad. They have fish meal or seaweed meal in them, which is wonderful for plants but has the 'ick' factor. The times I've used TerraCycle, there was no off-putting smell."

Raising start-up money was a big challenge, but Szaky, who had been an economics major, won contests and found several angel investors. His biggest backer was Martin Stein, a retired real estate executive now living in Boca Raton, Fla. The two sat next to each other at an annual stockholder meeting for another company, which Szaky attended as a proxy. Stein was instantly impressed with him. They now speak by phone almost weekly, and Stein thinks of Szaky as a son. "I met him, liked him, and said, 'Whatever you want to do, I want to do it with you,'" Stein recalled. "He's bright, honest, astute, and always thinking."

## Bottling Innovation

Szaky is also thrifty and resourceful, Stein notes. In TerraCycle's early days, the company could not afford the machinery to make containers. That's when Szaky came up with the idea of using recycled bottles to package the fertilizer. Distribution was another roadblock. Szaky took care of that by calling Wal-Mart 10 times a day for 30 days until someone finally picked up the phone.

The fledgling company couldn't pay its workers or offer them safe, affordable housing in the area. So in 2004 TerraCycle bought an old house in a neighborhood near its graffiti-covered Trenton plant and set it up for interns. "I think they paid \$10,000 for the whole house," says Albe Zakes, TerraCycle's publicity director. For the next two years, the company gave room and board to 35 interns who rotated cooking and cleaning duties. The idea came from Szaky, who never lived in

a co-op but did set up shared housekeeping in TerraCycle's first office. "It was quite something," Szaky said of the intern house where he, too, lived. It also became the subject of a Canadian TV documentary.

Indeed, TerraCycle attracts publicity the way that fertilizers draw flies. The first article about the company appeared in *The Trenton Times* in 2002, after Szaky made a cold pitch to the local newspaper. He was still enrolled in Princeton, testing out his ideas on the university's dining hall garbage. *The New York Times* quickly followed with an article that began, "Bookworms may no longer be Princeton's only larval export."

TerraCycle reaped even more free marketing last spring when Scotts Miracle-Gro sued it, alleging misleading claims and copycat yellow-and-green labels. The company confronted misfortune with mischief, setting up a Web site called *Sued by Scotts* that offered readers regular updates on the case.

Dirt-digging bloggers loved the David-and-Goliath story. They tended to side with the boyish-looking Szaky, whom Stewart likened to actor John Cusack. "Lighten up, Scotts," she wrote on her blog, *Garden Rant*. "Go pick on somebody your own size."

"Maybe Scotts is doing this company a big favor," one reader wrote back. "I had never heard of TerraCycle before and now I am going to go to Wal-Mart and buy me some liquid worm poop!"

Last fall, TerraCycle settled out of court, paying no money but agreeing to change its labeling and to refrain from making unfavorable comparisons or parodies at the expense of competitors. The company posted the settlement on its Web site.

Despite its growing fame and earnings, TerraCycle continues to run a lean operation. The company employs about 45 people who earn \$2 to \$3 above minimum wage. It still hires interns, but sold the intern house in the fall of 2005 because it needed costly repairs. Szaky had also met his fiancée, concert pianist Soyeon Lee, and was ready to leave communal living. The couple hasn't abandoned the recycling ethos, however. For example, this February Lee wore a gown made out of recycled juice pouches for her performance at Carnegie Hall.

Today, TerraCycle's management team includes Szaky, three financial officers, and a full-time lawyer, all working for about 60 percent of market rate. "Once we get up to market rate, we'll bring in health insurance," Szaky says.

Szaky does draw a salary, although he declined to disclose it. He's got a wedding planned in May, in Lee's native Seoul, South Korea, and he's writing a book on eco-capitalism. No pricey hobbies – for now, anyway.

Says Szaky: "I'll definitely get there at some point." □

## TURN LEAVINGS INTO EARNINGS

- Use what you have
- Make brand features out of quirky practices
- Grow a grassroots customer base on the Web
- Cut costs by eschewing traditional corporate perks