

By Teresa Martin

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Ben DeRuyter says technology just might help him close the loop from Table to Farm.

You read that right. While Farm to Table, with its sexy images of lovingly plucked baby greens, in-season veggies, and artisanal cheese makes the foodie heart got pitter-patter, what happens afterwards? What happens to food on the other end of the cycle?

In Massachusetts, “throwing it out” got yanked off the table last October as new state regulations said that businesses and institutions generating more than a ton of food waste a week must find another way.

Food fills about a quarter of the waste stream and managing solid waste means figuring out what to do with all those now-wilted greens, veggie trimmings, and cheese rinds. In a high-tech return to the past, DeRuyter told me that his EcoVim 250 might just be the technology to do the post consumption trick for his and his tenants’ restaurant businesses.

We too often think of technology only as something that takes computer form. Yet technology takes on all kinds of shapes and shows up in some of the most unexpected places. When it takes composter form ... well, how could I resist? In short order I found my way to a Provincetown alley, just behind deRuyter’s 1620 Brewhouse. There, I went eye to eye with this uber-composter.

Truth be told, I went partly hoping to see some Futurama-inspired chewing/smushing/grinding machine, but instead I almost overlooked the EcoVim, mistaking it for an ice machine. Really.

Instead of making some dramatic visual statement, the EcoVim wears a square metal box look. In fact, if you squint a little it kinda resembles a big commercial washer, except its spin cycle handles onion skins, de-juiced oranges, soggy lettuce, cornstarch forks, plate scrapings, and a host of other organic goop.

Its primary features is a door, which opens to the compost chamber. Inside the chamber, a shaft with three paddles turns the waste as hot air blows across the mixture. Outside, a wrap of warm oil creates a consistent heat environment for the chamber.

Mix and churn. Churn and mix. Twelve hours later, the original 250 pounds (or about four large bins) of goop comes out as 25 pounds of a brown, coffee-ground peat-moss looking substance that fills one small bucket.

The South Korean inventor of the EcoVim, Enic Co. Ltd., first sold the systems to U.S. military installations. U.S. commercial distributors soon followed. The concept is straightforward: Water comprises the vast majority of organic waste’s bulk. Evaporate the water and your waste drops to about one-tenth of its original volume. Hot air evaporates water.

We sometimes get intimidated by technology because we think it must be difficult, complex, and fancy, needing special skills to operate. Nothing could be farther from the truth, This machine

reminds us of the value in simplicity by simply sticking to the facts. Heat evaporates water. Water runs out via gravity. Toss in a few moisture and temperature sensors to keep the process cooking for maximum efficiency and we're turning yesterday's lettuce into brown gold – for about \$12 in power costs.

The machine is a testament to the way basic sensors carefully deployed, combined with a bit of gravity, can create a simple, elegant solution to a really big pile of waste.

Literally, you just plug EcoVim into three-phase power and off you go. The machine's array of sensors monitors the temperature and water content of the organic goop, adjusting temperatures and machine speed throughout the cycle. Gravity moves the evaporated water down a tube. Meanwhile, the 180-degree cycle sterilizes the goop and kills everything from bacteria to seeds while breaking down just about everything except oyster shells, metal, and really big bones.

The nutrient-rich output – that dry brown peat-moss-like substance, makes for some intense concentrated fertilizer, fertilizer that deRuyter turns around and sends back out his sibling's farm in Brewster ... which grows veggies for DeRuyter's restaurant.

The circle completes itself. Or, as deRuyter mused, it is using technology for sustainability. Farm to Table. Table to Farm.

And did I mention that it doesn't reek of rotting trash or attract rodents of unusual size? Or rodents of any size, for that matter. It doesn't require plumbing or any special installation other than a place to plug in. I kept looking for a gotcha – but couldn't find one other than cost.

Who doesn't like free? Alas, EcoVim is not free. It costs just shy of \$3,000 upfront and about \$96 per ton to run. But with waste hauling at an average of \$70 a ton and increasing every year, even that doesn't seem too bad.

Technology lies at the intersection of human hands and human minds, at the place where an idea becomes reality. Forget computing – compost creates some pretty cool technical challenges ... and solutions.

Teresa Martin lives, breathes, and writes about the intersection of technology, business, and humanity. Read more of her recent columns at www.capecodtimes.com/teresamartin