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Owareco's New Dehydration Technology Offers Superior Food Waste Solutions

Here are some breathtaking facts. More than a third of all the food produced in the world is wasted, according to foodwastestats.com.

Over one billion tons of food is never eaten. Forty percent of the food grown or raised in the U.S. alone is not eaten. There was a 50% rise in food waste from 1974 to 2003.

It's the third largest component by weight as it rots in landfills. Each person in the U.S. produces almost 500 pounds of it yearly. And it's only getting worse.

Granted, it's a sad situation. But what do we do with all that waste? If Owareco has anything to say about it, it can be dehydrated and environmentally and cost-effectively converted into a product that can be used for landscaping or gardening.

"Our name stands for organic waste reduction and conversion," says Dr. Robert J. Woodbine, senior vice president. "We also liked the play on words, being aware of what happens to 'organic waste,'" adds Leah Alexander. "Our slogan is reducing costs, reusing waste, restoring the environment, organic waste reduction and conversion."

Dr. Woodbine, Ms. Alexander and her brother, Myron Alexander, are all partners in the venture, which seeks to provide restaurants, food service institutions and municipalities with a safer, less expensive way to get rid of waste while lowering its carbon footprint to protect the environment.



"How it works is simple," says Woodbine. It all began in South Korea, a small land mass, which was driven by necessity to find a solution for managing its food waste. Dr. Woodbine points out that, at that time, most food waste was disposed of by food digesters huge units that use a tremendous amount of water and enzymes to digest and break down the food. These units produced 'gray water,' a biohazard, which had to be processed downstream in municipal waste treatment plants.

"When you looked at the cost of installation, the added plumbing, the additional water, the effluence downstream in the municipal waste system having to take care of that environmental pollution, you saw, as the S. Koreans did, a big problem," says Dr. Woodbine.

Owareco now uses the technology developed in S. Korea to dehydrate food waste to reduce its volume, carbon footprint and the need to be hauled away to landfills. With Owareco's Ecovim food dehydrators, no added water or digestive enzymes or wood chips are needed, no plumbing or venting is required, and these standalone on-site units can be installed either inside or outside.

"The actual technology is the mechanical agitation of food waste in the interior of the unit with a combination of oil heat and heated air," says Dr. Woodbine.

At the end of the batch-feed processing cycle, users get potable water that can be used for landscaping or gardening, and nutrient-rich soil amendment to accelerate composting. Modifications are even being made to compact the soil to bio fuel pellets as well. "The end product is reduced by 75 to 90%," says Dr. Woodbine, "because we're extracting the fluid content in food waste, and coming out with a dry product."

The cost-savings are just as impressive, he notes. "You're going to save using the Ecovim systems because, on the front end, you don't have costs for plumbing or venting, no permitting, no ongoing cost of enzymes

and wood chips and chemical deodorizers, and on the back end, the food waste is being rehydrated or reduced by up to 90% of its original volume and carbon footprint. You're hauling away less frequently so hauling fees are reduced, if you haul it away. Many restaurants on the West Coast use the end product for landscaping so there are no tipping fees. And you're not burdening the environment with this 'gray water.'

Some schools are even using the soil amendment as a profit center, selling to landscapers, instead of baking cookies, Dr. Woodbine says.

The systems also have a built-in proprietary deodorizing aspect. "The odor you do get at the end most people like. It smells like coffee grounds or bouillon, depending on the amount of beef in there," he explains. "No gas emissions, no venting, the carbon footprint is reduced because of the dehydration. You're hauling less frequently and not as much. That's if you haul at all. What's not to like?" he says.

For municipalities like New York City which is imposing composting mandates for restaurants this spring or summer, there is less waste and less cost.

The Ecovim units come with a one-year warranty, and locally there are trained technicians who can provide 24-48-hour maximum repair time frame. Soon the units will have wireless troubleshooting, so technicians will be able to troubleshoot remotely, and fix 80% of the issues without having to come out at all.

"Leasing and financing are also available," says Dr. Woodbine. "We make it very easy for those who see that our technology is affordable and workable to meet these mandates."