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FOOD & DRINK

Small Companies, Walmart Teaming In War To Reduce Food Waste

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The F&B industry helps feed the world every day, and technology is making the process more efficient, potentially boosting profits while reducing waste. But there's a long way to go. The industry still generates massive mountains of wasted product. Like most problems, however, this one is creating opportunities that can benefit the bottom line, the environment, and, in some cases, attract investment.

Where some see waste, for instance, Bryan Fried, CEO and chairman of Pangea Global Technologies (PGT), sees ways to help, generating deals with Walmart that use tech to cut waste and grow income. The company inked a deal for four indoor farming locations, no more than 600 miles from Walmart's stores that use coordinated lighting, watering, and fertilizing systems and collect data on how plants are growing. Then PGT uses the data to optimize those features and reduce waste.

A growing concern

The first thing to understand is the scale of the problem, and why it is fueling efforts to waste less and tap tech more. According to The World Counts website, roughly one third of the world's food is wasted, or about 1.3 billion tons. Since food waste represents about 10% of global greenhouse gases, reduction solutions are critical in the battle against global warming. Crop and weather issues, transportation and storage, packaging, shelf life, inefficiencies in restaurants, and poor household buying and eating practices make the cycle a vicious one. More and more waste will continue to pile up unless we confront it.

Even if we cut it in half, with population growth food waste will continue to increase. The UN estimates the economic consequence of food waste is \$1 trillion annually. The World Bank projects that global municipal waste, which includes the food refuse stream, will increase from 2.01 billion metric tons in 2016 to 3.4 billion by 2050. While there is disagreement about the numbers, there is no disagreement about the huge scale. That is leading to a global search for solutions as well as a reliance on technology to tame what has become a vicious problem.

Solutions and Strategies

Since a great deal of food waste occurs at the farm level, Fried sees vertical farming, including in urban centers, as part of the solution. Indoor agriculture is free from weather impacts and has lower fertilizer, transportation, and storage costs. Before Covid, Controlled Environment Agriculture, otherwise known as CEA or indoor agriculture, was projected to grow at a 20% rate, according to Fried. Since then, there has been increased interest and a massive acceleration in this methodology. Indoor agriculture can be much closer to

urban stores, reducing the expense and pollution that goes with moving food over large distances.

Tesla, Walmart, and the Emirate of Dubai all are investing in CEA. Speaking of Dubai, Crop One opened “the world’s largest” vertical farm in this UAE capital city, which is expected to produce more than 2 million pounds of leafy greens annually to be served to passengers on Emirates flights, according to *TechCrunch*.

While the Dutch pioneered CEA, no one has integrated both hardware and software to accomplish what Fried describes as a breakthrough solution. Combine efficiencies with energy savings, rebates, and enterprise zone tax credits, and it’s a win-win for the world.

An app for that

Walmart isn’t alone in jumping on the food waste reduction bandwagon. Regional grocer Giant Eagle is rolling out the Flashfood food waste reduction program in all of its supermarkets. The free Flashfood app gives shoppers access to exclusive deals on products — including meat, produce, seafood, dairy, deli, and bakery — that are nearing their best-by date. Significantly reduced prices drive purchases of food that otherwise would go into the retailer’s waste stream, as reported by *Supermarket News*.

Efforts to reduce packaging also are a big part of the worldwide drive to waste less and earn more. According to the U.S. Environmental Protection Agency, consumers globally use about 1 trillion plastic bags annually, with less than 10% in the U.S. ultimately recycled. A 2020 study of plastic pollution by STEMIQ and The Pew Charitable Trusts found ways to reduce plastic packaging include technology, recycling, reduction and reuse, new public

policy, changes in consumer behavior, R&D, and improved recycling and waste management infrastructure.

Walmart says it is “optimizing packaging” and “reducing single-use plastic bag waste” among other things.

“Millions of tons of food, products, and packaging move through Walmart facilities every year,” according to the company. “Wasting any of it ultimately drives up costs for everyone.”

Forming alliances

In 2020, Walmart joined with Target, CVS Health, and others to co-found the Closed Loop Partners’ Beyond the Bag effort, helping develop sustainable alternatives. Walmart launched a bagless pilot in Vermont, where 78% of customers turned to “bagless” shopping instead of paying a fee for single-use bags. They expanded bagless pickup service to stores in Connecticut, Maine, and New York. The company says it beat its April deadline to eliminate single-use plastic shopping bags at stores in Canada.

Using technology, Walmart says it “strengthened our forecasting and ordering tools” for food and enhanced distribution centers and offers of “discounts on food nearing its expiration date.” In fiscal 2022, Walmart’s U.S. stores and clubs sold more than 190 million food units through food discount programs. The company also donated more than 696 million pounds of food in the United States, doing good on two fronts.

“If food is no longer edible, we work to convert it into animal feed, compost, or energy,” according to Walmart.

Big companies like Walmart produce a lot of revenue, as well as a lot of waste, from farm to packaging. While there's always a push to sell more, the focus is now on wasting less as well. Expect new technology and better data to be tools in the war on waste. Progress will be good for the planet and for profits.