Making a more efficient dairy farm and community with food waste

Brett Reinford remembers the moment a new opportunity opened for his family’s farm – and for his community’s food waste.

Ten years ago, a grocery store representative called to ask if the farm’s digester, designed to generate power from the manure of 725 cows, could handle spoiled produce. If so, the grocer said, he was willing to pay the Reinfords to accept food waste on a regular basis.

“We made a bunch of calls to universities and asked, ‘Can we put food waste in a digester?’” Reinford recalls. “We tried it, and we made three times as much on gas as we did on manure.”

Before long, other companies had contacted Reinford to ask him to take their food waste instead of sending it to landfills. These opportunities now provide another stream of income for the farm, and the digester generates enough electricity to power the dairy and about 100 homes.

But it also created some headaches along the way, as some waste arrived in packaging that could not be processed by the digester. Fragments of metal and other trash got mixed into the compost, which is a beneficial digester byproduct Reinford uses for cow bedding.

Trying to manually remove the packaging from the food waste before it went into the digester was too labor-intensive. So Reinford began exploring technology that could remove the packaging and found a machine appropriately called a depackager.

Any food waste can be loaded into the depackager, where it is pushed through a long pipe. A system of paddles separates the packaging from the food, which falls to the bottom and is piped to the digester. Leftover packaging, such as cans and plastic wrapping, is pushed into a truck for recycling.

“We’re not just milking cows, and that’s what’s pretty cool,” Reinford says. “We wouldn’t have imagined 10 years ago we’d be doing something like this. The one thing about waste is there’s always going to be more. It’s a recession-proof business, and it’s a critical component to our farm’s bottom line.”