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Smells like energy

Key Points

- Ashley farm and quasar energy cut ribbon on new biodigester.
- Hog manure, food byproducts help create renewable energy.
- Farm has a second biodigester being built near Dayton.

By **TIM WHITE**

WHAT'S the big deal? All the Ringlers are doing is taking hog manure, mixing in some waste products from the food industry and municipalities, running it through a quasar energy biodigester to create methane gas to generate electrical energy, and coming out with a nutrient-rich, eco-friendly organic fertilizer.

No big deal?

Tell that to the dignitaries who came out in force for the unveiling of Ohio's first farm-based biodigester Sept. 20. And no wonder — the \$6 million effort took multiple years of research, several trips to Europe, a year of preplanning with builder and partner quasar energy group, landing of a major USDA Rural Energy for America Program grant and loan, and negotiation of a local bank loan.

Not only were the principles from each of those entities on hand for the ribbon cutting, but the Ohio Pork Producers Council, the director of the Ohio Department of Agriculture, the Ohio Farm Bureau, the Morrow County Development Commission, and the local soil and water district were also there.

"It all started because we've been utilizing various alternative byproducts to our livestock for many years," says Bill Ringler.

As a result, the farm has become a resource for everything from whey byproducts to spent grains. What once was strictly hog feed is now part of the substrates for the digestion process. Tipping fees from those getting rid of the waste materials help the digester's bottom line, he says.

The idea started many years ago when Bill's son Alex was on



POWER GENERATORS: Three generations of Ringlers pose for a photo in front of the biodigester on the farm near Ashley. They are Alex (left) and wife Misa, with their sons Isaac, 8, and Jude, 3, and Alex's parents, Bill and Yama.

a trip to Europe and saw some of the many biodigesters in use in countries like Germany. "Their feedstocks were different from ours, but the idea of taking a liability like manure to an asset like energy was very intriguing," says Alex Ringler.

980,000-gallon capacity

Bill Ringler began searching for a manufacturer about a year ago and started discussions with quasar energy group. With its help, he applied for the USDA grant and loan, becoming one of five Ohio locations to be awarded the competitive monies.

Planning and construction took almost two years. At the Ringlers' site, the manure from about 7,000 finishing swine is pumped to a concrete collection

tank. The "daily dose" of manure to the holding tank is about 8,000 gallons a day. From the tank it is pumped into the digester, which has a capacity to hold 980,000 gallons. It takes about 28 days to digest the manure. The process creates methane gas, which is trapped by a membrane roof on the digester. The gas is used to

run generators to produce electricity. Producing 800 kW per hour, the electricity is enough to power 500 homes. Some is used to power the farm, and the rest feeds back into the electrical grid. The farm plans to clean the methane to produce compressed natural gas, which it will use to power its fleet of 40 trucks. The

final product is marketed as "equate — an ecofriendly alternative to traditional fertilizers."

Next, the Ringlers and quasar will open a second biodigester near Dayton. The opening may not attract as much attention, but the green energy created by the ecologically friendly process will be just as valuable.

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