



# Sensenig Dairy

Kirkwood, Pennsylvania

**Winner: Outstanding Dairy Farm Sustainability**

## Dairy perseveres with creative solutions and collaborations

Traditionally, anaerobic digester systems have not been practical on small dairy farms, but this didn't stop Sensenig Dairy, a 100-cow farm, from pursuing its goal of being both financially successful now and in the future. In order to do so, Sensenig Dairy needed a way to collect enough manure to fuel a digester. With the help of a team of consultants and nearby relatives who own hog and poultry farms, the farm surged forward with the implementation of a digester to reduce costs and create a new revenue stream.

## Best Practices

### 1 Community digester

#### Summary

The community digester at Sensenig Dairy is fed six times a day by manure from 200 dairy animals, 2,000 hogs and 30,000 chickens. The community also contributes to the digester by adding food waste. The project has reduced greenhouse gas emissions, taxes, bedding and fertilizer costs, while also creating new revenue streams including the sale of carbon credits, fertilizer and bedding. Because the digester produces three times the amount of energy the dairy needs, the dairy also generates revenue by selling energy back to the grid.

#### Key benefits

The digester produces 1,401,600 kilowatt hours of electricity per year. It also offsets 989 metric tons of greenhouse gas emissions per year, which is equivalent to removing 206 cars from the road. In addition, an underground pipeline has alleviated the need for trucking, reduced the possibility of manure spills and improved air quality by reducing odor by 80 percent.



## 2

## Community relations/involvement

### Summary

The Sensenigs worked with the community for one year and then secured final approval from their neighbors. The entire project was community-oriented and required collaboration from many different parties, including one neighbor in particular who was impacted because the pipeline ran through his property. Cliff and Andrea worked with that neighbor to ensure the pipeline would remain part of the digester if the farmer ever sold his property. They also worked with their county to ensure the 1.1-acre digester site would be classified as a rural enterprise, but the dairy could keep its status as a farm. Finally, in an effort to show their support for the local economy, the Sensenigs chose to purchase many of the supplies for the digester and nearly all of the farm inputs from local vendors.

### Key benefits

Due to their efforts to involve the community early in the planning process, Cliff and Andrea received early buy-in and continued interest in the project. They truly paved the way for similar community digester projects by exploring uncharted territory and setting a precedent in several areas. In an effort to share that knowledge and experience with others, they have hosted two educational events focused on teaching farmers about the feasibility of implementing digesters on small dairies.

The Sensenigs continue to explore innovative management practices to make their dairy more lucrative and sustainable for their young children. While digesters are generally seen as feasible only for large dairies, Cliff and Andrea have proven that creative solutions can work for small dairies, too.



The Sustainability Awards are part of the U.S. Dairy Sustainability Commitment, an industrywide effort to measure and improve the economic, environmental and social sustainability of the dairy industry. The award program recognizes dairy farms, businesses and collaborative partnerships for their contributions to healthy people, healthy products and a healthy planet and showcases that sustainability makes good business sense. An independent panel of judges evaluates all nominations based on the program's or project's results as measured by triple-bottom-line success – economic, environmental and social. For more information, please visit [USDairy.com/Sustainability/Awards](https://USDairy.com/Sustainability/Awards).