Tradition and innovation guide pioneer, lead the industry

A third-generation dairy farmer is plowing the way forward for the dairy industry with sustainable practices and technology innovations. Alliance Dairies, a 6,000-cow dairy farm in Trenton, Florida, was founded in 1990 with a belief in “success through sustainability.” The dairy installed a DVO mixed plug flow methane digester that was specifically designed for a freestall barn flush system. Alliance Dairies also was the first dairy in northern Florida to receive a permit from the Department of Environmental Protection (DEP) for its sustainable wastewater management practices. These firsts are only glimpses into the accomplishments of the farm.

From the beginning, Alliance Dairies worked to be more sustainable. The dairy is situated in the highly sensitive Suwannee River Basin and Manatee Springs region, making dairying a challenge and water protection a priority. The dairy partnered with the Suwannee River Management District’s water conservation program to ensure Alliance Dairies was doing what it could to help.

In 2011, Alliance Dairies wanted to implement a digester but knew its barn system would require special engineering. The team challenged a typical digester design to be used with their flush system, unwilling to give up on the possibility of environmental and financial advances. A digester began powering the farm on a continuous basis in 2013. It now supplies more than 70 percent of the dairy’s daily electric needs — equivalent to powering 425 homes year-round. Not only is the digester providing electricity for the farm and bedding for the cows, it also generates energy for the community’s use and touts a reduction in odor.

“The energy savings are only a portion of the benefits we’ve seen from the digester, and after approximately five years, those savings alone will pay for the entire project,” says Jan Henderson, chief financial officer at Alliance Dairies.

Now, Alliance Dairies is looking to take its sustainable advances beyond its own farm with partnerships that will help others innovate. Recognized as a County Alliance for Responsible Environmental Stewardship (CARES) farm by the Florida Farm Bureau Federation, Alliance Dairies is going beyond U.S. borders. It is currently working with partners to build a dairy in Lobatse, Botswana, and train local Botswana managers in dairy science at Alliance Dairies.

Water management is a top priority at Alliance Dairies:

• The only fresh water used on the farm is for cooling, drinking and cleaning. All other water is recycled.

• A computer “base station” provides the ability to turn the pivot irrigation on and off in response to weather conditions.