

FLORIDA FARMERS RELY ON PROPANE ENGINES FOR SUSTAINABLE POWER IN DEMANDING ENVIRONMENTS

A PROPANE CASE STUDY

US. Sugar and Tamiami Citrus are among many producers in Florida, as well as across the nation, who have experienced success with switching to propane-powered irrigation engines. Reliable, efficient propane engines allow producers to sustainably manage water throughout unpredictable wet and dry seasons.

U.S. SUGAR

With approximately 245,000 acres of production cane ground, effective water management is absolutely critical for U.S. Sugar. “With sugar cane, not having enough water is very harmful but too much water can also be detrimental. So it is very important to consistently control the water levels as well as possible,” said Gary Gray, Agriculture Project Engineer for U.S. Sugar.

“As we examined results from the six propane units we currently have, we have observed that the more hours they are running, the better results we experience. These propane units have quickly proven themselves to us and we plan to continue to invest in more propane units for our farm in the future,” said Gray.

“With sugar cane, not having enough water is very harmful but too much water can also be detrimental.”

— Gary Gray
Agriculture Project Engineer, U.S. Sugar



COMPANIES

U.S. Sugar
Clewiston, Florida

Tamiami Citrus
Fort Myers, Florida

CHALLENGE & SOLUTION

Florida’s radical wet and dry season makes reliable, consistent engine power for water management absolutely critical for Florida farmers. Increasing emissions standards and Tier 4 compliancy components also pose an additional challenge for farmers across the nation. For U.S. Sugar and Tamiami Citrus, propane engines have provided an ideal solution to meet these needs and more.

RESULT

- Propane irrigation engines reduce fuel costs by up to 50 percent when compared with similar diesel engines.
- Propane irrigation engines do not have complex after-treatment systems like Tier 4 emissions standard diesel engines, saving valuable time and money.
- There are more than 30 models of propane-powered engines available in all 50 states, in a variety of sizes and horsepower ranges.
- New propane engines can be outfitted with the latest telemetric technologies for remote monitoring, dynamic operations, based on variable inputs, and remote control via tablets and smartphones.

TAMIAMI CITRUS

Tamiami Citrus has approximately 5,000 acres spread throughout central and South Florida. “In the areas where we farm, we get approximately 57 inches of rain a year which is enough to grow any crop but unfortunately, we deal with Florida’s unpredictable wet and dry season,” explains Ed Leotti, Chief Operating Officer at Tamiami Citrus. “Our propane irrigation engines help us not only irrigate but pump field water out into the reservoir.”

This type of water management ensures Tamiami Citrus can be more self-sufficient, having water on-hand for supplementation during the dry season and managing water levels to avoid an abundance of water and elevated levels during the wet season.

“We have a propane pump that discharges from a canal that’s set to turn on at six feet and off at 4.5 feet, precisely keeping our water table right where it needs to be,” said Josh Cantu, Grove Manager at Tamiami Citrus.

PROPANE: A CONVENIENT, COST-EFFECTIVE & EMISSIONS-COMPLIANT

Propane irrigation engines promote environmental sustainability by producing significantly less emissions. In addition to obvious environmental benefits, this also benefits producers as it allows them to easily meet Tier 4 emissions standard requirements without the need for complex engines with expensive diesel exhaust fluid and filters.

“Something I noticed right off the bat was the lack of after treatment required with our propane units when compared with what typical Tier 4 emissions standard diesel engines require,” said Gray. “With those units, you have DPF filters, SCR systems, and an enormous amount of exhaust after treatment systems. With the propane power units, you have one basic catalyst unit. We really appreciate the time and effort this saves us regularly.”

In addition to cutting down on emissions and time required for successful operation, switching to propane engines also cuts costs, both on original purchase price as well as daily costs including fuel, operation, and maintenance costs.

“We compared the cost of propane units to Tier 4 diesel engines and the propane engines won hands-down in both initial cost and what we’ve experienced for fuel and maintenance costs as well,” said Leotti. “In addition, propane fits into our business culture of sustainability perfectly and we know we can rely on American-made propane to be available to us during any period of time for a long period of time. That is invaluable.”



“We compared the cost of propane units to Tier 4 diesel engines and the propane engines won hands-down.”

— Ed Leotti
Chief Operating Officer
Tamiami Citrus

FOR MORE INFORMATION

To learn more about propane-powered irrigation engines and view video testimonials, visit propane.com/agriculture.

Propane Education & Research Council / 1140 Connecticut Ave. NW, Suite 1075 / Washington, DC 20036
P 202-452-8975 / F 202-452-9054 / propanecouncil.org

The Propane Education & Research Council was authorized by the U.S. Congress with the passage of Public Law 104-284, the Propane Education and Research Act (PERA), signed into law on October 11, 1996. The mission of the Propane Education & Research Council is to promote the safe, efficient use of odorized propane gas as a preferred energy source.