

## FAMILY FARMS INCREASE PROFIT WITH SWITCH TO PROPANE-POWERED IRRIGATION ENGINES

### A PROPANE CASE STUDY

**T**he family-run Swindle Farms, in Elaine, Ark., primarily used diesel to power farm operations and irrigate its 8,000 acres of corn, milo, wheat, rice, and soybeans. As prices for diesel continued to rise, Swindle Farms became concerned about the cost of irrigating its crops. When it was time to replace some of their old diesel engines, they began to consider alternative fuel options.

Gordon Cunningham of Cunningham Propane in West Helena, Ark. recommended the Swindles replace their costly diesel-fueled irrigation engines with new models powered by propane. New propane engines cost approximately 50 percent less than Environmental Protection Agency-certified Tier 4 diesel engines with comparable power and performance. Swindle Farms replaced five diesel-fueled engines with new Buck's 5.7-liter General Motors propane-powered engines.

In addition to paying less per engine than a comparable certified diesel-fueled model, Swindle Farms reduced its upfront costs even further by applying for financial incentives through the Propane Education & Research Council Propane Farm Incentive Program. Under the research initiative, farmers can earn \$400 per liter of engine displacement, up to \$5,000, for buying and testing a propane-powered engine.

Jackie Swindle, one of the farm's owners, was surprised with the simplicity of the application process. "It was very easy," he said. "We purchased the engines, applied for the incentive, and in about two weeks, received them. It was pretty quick."

Swindle Farms received \$2,120 for each 5.7-liter propane engine, and increased their cost savings even more thanks to the low price per gallon of propane and reduced engine maintenance costs.

#### COMPANY

Swindle Farms  
Elaine, Ark.

#### CHALLENGE & SOLUTION

Swindle Farms replaced its diesel-fueled irrigation engines with 11 clean-burning propane engines to save money on fuel costs. The new engines reduced Swindle Farms' overall fuel costs and increased profit for their 8,000-acre operation.

#### RESULT

- Reduced upfront costs over EPA-certified Tier 4 diesel-fueled engines and saved additional money with incentives through the Propane Farm Incentive Program.
- Reduced fuel costs by 68 percent per hour compared with their diesel-fueled engines.
- Increased income per acre, especially on the farm's rice crop.

## SATISFIED CUSTOMERS

The new engines performed well during the first week of use on the farm. “As soon as we ran the engines for a few days, we knew we really liked them. They were quiet and efficient,” Swindle said.

Swindle was so impressed with the Buck’s 5.7-liter engines, he recommended them to his family and friends farming in the area. Now 11 propane-powered engines are being used to irrigate crops near Swindle Farms.

After installation, Swindle Farms began to monitor the engines’ fuel consumption. Research at the end of the season showed that the Swindles reduced their fuel costs by 68 percent per hour compared with the diesel-fueled engines they owned prior to the 2013 irrigation season. Clean-burning propane decreased dirty deposits on engine components, which further reduced overall maintenance costs.

Fewer oil changes and maintenance costs, combined with fuel savings, meant more profit for Swindle Farms.

“We’ve seen more net income per acre, especially on our rice crop,” Swindle said. “We run our engines a lot of hours and these new engines have helped us save a lot of money and increase our overall profit.”

Swindle was also pleased with the added convenience of having reliable engines that perform without grid-related power interruptions and a steady supply of fuel thanks to regular fuel deliveries by Cunningham Propane.

With 11 propane engines at work irrigating Swindles’ crops, Jackie Swindle is no longer a skeptic regarding the benefits of American-made propane. He plans to add additional engines for the next growing season and thinks that more farmers will upgrade to propane



irrigation engines once they hear about the benefits over diesel.

“As diesel prices continue to climb and environmental regulations become stricter, more farmers will see the benefits of propane and make the switch,” he said. “They’re great engines, and we’ve been very satisfied with them. They’ve worked well for us.”



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**Jackie Swindle**  
Owner, Swindle Farms

### FOR MORE INFORMATION

To learn more about propane-powered irrigation engines, the Propane Farm Incentive Program, and the Propane Education & Research Council, visit [propane.com/agriculture](http://propane.com/agriculture).

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