SELLING PROPANE-POWERED AG EQUIPMENT
CONGRATULATIONS.

You hold in your hands the resource needed to sell propane-powered agricultural equipment. This kit is designed to give you the tools and information you need to maximize your sales potential with farmers interested in propane-powered equipment.

Up front you’ll learn about the agriculture market, the various ways propane is used on the farm, and how you can build relationships with farmers and producers in your area.

The following section highlights available materials like case studies, fact sheets and instructional and testimonial videos to help train your employees. The last section collects and explains all the available materials you can use to help farmers in your area learn the advantages of using propane. The files for these materials can be found on propanemarc.com.
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There are a number of reasons propane is an outstanding energy choice for farms. It’s a nontoxic, colorless, odorless gas that’s produced from natural gas processing and crude oil refining. A nontoxic odorant is typically added for safety, which is why propane is often associated with a rotten-egg smell that’s easy to identify.

Propane can be stored as a compact liquid that is highly portable while offering a very low theft risk. It can be used wherever clean-burning fuel is needed and doesn’t degrade over time like other fuels, so you don’t need to treat your fuel or drain your tanks from one season to the next. This makes it a versatile energy for applications around the farm.

When comparing propane with other fuels, it’s easy to see the environmental advantages. First, because it’s a nontoxic fuel, spills and contamination aren’t an issue. Propane is also one of the cleanest burning of all fossil fuels, emitting fewer greenhouse gases than gasoline or diesel. In fact, it is an approved alternative fuel listed in the Clean Air Act of 1990 and the National Energy Policy Acts of 1992 and 2005. And because it burns clean, propane-powered equipment stays cleaner, too.
ADVANTAGES FOR AGRICULTURE CUSTOMERS

Like any business owner, farmers have to keep a close eye on their bottom line — a job that has become increasingly difficult given unpredictable fuel costs. The rising price of gasoline and diesel has forced farmers to consider other, more efficient alternative fuels. As a competitively priced, clean, and domestically produced fuel, propane offers tremendous value for an industry that is greatly dependent on energy-intensive equipment.

Cost isn’t the only factor driving farmers to choose propane, however. The Propane Education & Research Council has led efforts to develop new propane-powered technologies that offer an array of benefits to farming operations.

LOWER COSTS

Improving efficiencies and reducing costs are critical to the success of an agriculture operation. Propane offers several solutions that can help make it happen. For instance, today’s propane-powered irrigation engine can cost considerably less to purchase than a diesel engine, and the fuel cost savings can be significant. And with the Propane Farm Incentive Program, farmers can earn a financial incentive on the purchase of new propane-powered equipment.

ABUNDANT SUPPLY

Propane is domestically produced, primarily from natural gas, and we have plenty of it. In fact, the United States is a net exporter of propane, which means we produce more than we use. And by 2020, experts project America’s supply will increase another 33 percent.
FEWER EMISSIONS

The environmental benefits of using propane are considerable, especially when compared with other fuel types. For example, propane-powered irrigation engines produce 11 percent fewer greenhouse gas emissions than diesel systems and 20 percent fewer than gasoline. They can also lower emissions of nitrous oxide (\(N_2O\)) compared with other fuels. It’s a cleaner, more efficient way for farmers to power their equipment.

You’re likely familiar with Tier 4 regulations established by the EPA, requiring deep reductions in pollutants and particulate matter. Diesel engines on farms must meet all Tier 4 standards by 2015, which means farmers must choose to retrofit their engine’s costly emissions equipment or purchase new engines. As the price of new diesel engines rises with manufacturers adding expensive components to their engines to comply with Tier 4, today’s propane-powered engines become even more appealing. They easily meet Tier 4 emissions standards and do so without compromising performance, power, or productivity.

ON-SITE REFUELING

Propane offers proven refueling options delivered right to the farm. A local propane supplier can customize the perfect fueling plan for any size operation to ensure consistent delivery year round. Establishing a good relationship with your local propane provider will help you work together to find the right solutions for customers.
Propane isn’t new to agriculture. Generations of farmers have been using it to power their equipment, so many of your customers likely own propane-powered equipment or are familiar with it. Additionally, propane’s infrastructure allows power to be provided wherever needed, which makes it an ideal solution for many applications around the farm.

While some farmers may have negative perceptions of propane based on previous generations of irrigation engines or inefficiencies with old equipment, they are few and far between compared with the millions of satisfied propane users. And with improvements being made with each new generation of propane-powered equipment, even the biggest skeptics’ concerns are being eased. Leading manufacturers of agricultural equipment continue to develop great equipment that runs on propane, so you can be confident that you’re offering the best propane-powered equipment available.

With these new technologies and the increasing supply of clean, American propane, the long-term outlook is very positive.
TYPES OF FARMING OPERATIONS

Every operation has unique needs, but understanding the most popular equipment for each type of operation can go a long way in helping your customers find the right solution.

CROP PRODUCTION
An operation that uses land exclusively for growing crops like barley, sorghum, wheat, corn, rice, rye, canola, and soybeans.

COMMONLY USED PROPANE-POWERED EQUIPMENT:
- Irrigation engines.
- Grain dryers.
- Generators.
- Pickup trucks.
- Forklifts.
- Building and water heating.
- Flame weed control (often for organic producers).
- Commercial-grade mowers.

HAY AND FORAGE PRODUCTION
An operation that uses land exclusively for the production of grass, legumes, or other herbaceous plants that will be harvested and sold to livestock owners for animal feed.

COMMONLY USED PROPANE-POWERED EQUIPMENT:
- Irrigation engines.
- Pickup trucks.
- Forklifts.
- Building and water heating.
- Commercial-grade mowers.
TYPES OF FARMING OPERATIONS

LIVESTOCK FARMING
An operation that uses land to raise and care for livestock.

COMMONLY USED PROPANE-POWERED EQUIPMENT:
- Irrigation engines.
- Generators.
- Pickup trucks.
- Forklifts.
- Building and water heating.
- Commercial-grade mowers.

DAIRY FARMING
An operation that uses land to raise and care for dairy cows.

COMMONLY USED PROPANE-POWERED EQUIPMENT:
- Irrigation engines.
- Generators.
- Pickup trucks.
- Forklifts.
- Building and water heating.
- Commercial-grade mowers.

MIXED FARMING
An operation that involves two or more types of farming like livestock and crop farming, in which a tract of land would be specified for grazing purposes, while another would be used to grow crops or hay.

COMMONLY USED PROPANE-POWERED EQUIPMENT:
- Irrigation engines.
- Grain dryers.
- Pickup trucks.
- Forklifts.
- Building and water heating.
- Commercial-grade mowers.
In the agriculture industry, the value of propane isn’t limited to just the field. It can influence all aspects of farming operations. Whether it’s used in irrigation engines, grain dryers, standby generators, pickup trucks, or a variety of other applications, propane’s ability to efficiently fuel a wide variety of farm equipment expands your opportunities for sales.

Farmers may be familiar with propane as a fuel source, but they may know less about the high-performing propane technology that only recently has started to come to market. Here is an overview of the new generation of propane-powered farm equipment available today.

**IRRIGATION ENGINES**

Irrigation engines power different types of irrigation systems that deliver water to the crops out in the field. The new propane-powered engines are more efficient than older propane models and can provide farmers with an immediate savings in fuel costs compared with diesel or gasoline. Plus, propane-powered irrigation engines are better for the environment and are already compliant with the EPA’s Tier 4 emissions regulations.

**GRAIN DRYERS**

Grain drying is a critical phase in the harvesting process that conditions grain for safe storage. High-capacity, on-farm grain drying systems are a popular operation with many ag operations. Grain drying provides farmers additional flexibility with harvesting and marketing their crops. Farmers can harvest early and bring more total crop to market. Harvesting early, while the crop retains small amounts of moisture, reduces grain field losses and can more than make up for the cost of propane drying. Plus, the flexibility of grain drying provides a longer marketing window. New propane-powered units distribute a very precise heat, which ensures that the grain dries evenly, resulting in a high-quality yield.

**STANDBY GENERATORS**

A power failure can devastate a farm. That’s why an emergency power source like a standby generator is so essential. It prevents costly interruptions in operations and ensures critical farm equipment like water wells and building ventilation fans are always functioning. Propane-powered standby generators provide farmers with an additional layer of security because propane does not degrade over time like gasoline or diesel.

**FLAME WEED CONTROL**

Propane-powered flame weed control is growing in popularity because it’s an environmentally friendly alternative to herbicides that is just as effective. It works by using intense heat to rupture plant cells, causing the weed to wither and die. The system can be used in a variety of weather conditions and growth stages, and it allows farmers to return to the field immediately after treatment. This is a great weed control solution for the growing number of organic farmers, as well as an alternative for others interested in reducing herbicide use.
BUILDING AND WATER HEATING
A growing number of farms are using propane-powered building and water heaters. Propane keeps plants and animal containment areas heated during cold winter months, cleans, and sanitizes facilities such as greenhouses and dairy milking parlors. It’s a valuable addition for farmers who need reliable and efficient heat.

VEHICLES
Propane-autogas-powered light-duty pickup trucks offer farmers a transportation option with lower operating costs and lower emissions than those that run on gasoline or diesel. Plus, these vehicles deliver horsepower, torque, and towing capacity equivalent to their gasoline counterparts. It’s no surprise this domestically produced fuel is one of the country’s leading alternative fuels.

MOWERS
Propane-powered mowers can help farmers save money and lower their emissions as they maintain their property. More than a dozen top mower brands offer propane-powered options, including walk-behind, stand-on, and zero-turn-radius models. Farmers can also convert existing equipment using EPA- and CARB-certified conversion kits.

FORKLIFTS
Propane-powered forklifts offer many advantages over electric, natural gas, diesel, and gasoline-fueled units. They are safe, offer an easy cylinder exchange system, are easy on the budget, environmentally friendly, and can be used for both indoor and outdoor applications. Therefore, forklifts on the farm can prove to be a vital tool to lift, carry or stack goods. They can provide assistance with applications such as hay and forage production, crop production, livestock, dairy, and mixed farming.
AG EQUIPMENT DEALERS

Dealers are a significant influencer when it comes to helping farmers choose which equipment to buy. They are a valuable resource for research and information, personal experiences, and passing along word-of-mouth success stories from other customers. And because of their long-standing relationships with farmers, dealers are viewed as a trusted partner.

The success of any equipment dealer’s business hinges on providing recommendations that can help customers meet a specific need. It’s important to know the various equipment options available, particularly when there’s a propane-powered option. It’s important to educate customers on the value of propane, and show them how propane-powered equipment is cleaner and costs significantly less to operate than a diesel unit.

MANUFACTURER REPRESENTATIVES

Manufacturer representatives (often called OEM representatives) can help you learn more about the advantages of propane-powered equipment and how to sell it. They should provide you with all of the support and information needed to effectively promote the equipment and educate customers. This can include marketing collateral, product sell sheets, customer service assistance, and equipment demonstrations. They can also help put you in touch with a local propane expert who can discuss with you and your customers how propane can be consistently and reliably delivered to the farm.
Now that we’ve provided you with a better understanding of propane in agriculture and identified why propane offers a tremendous opportunity for equipment sales, it’s time to form a game plan.

1. **DO YOUR HOMEWORK.**

The first step should be to read this toolkit to make sure you have a good understanding of the advantages of propane on the farm. You might also do a little online research and spend some time with the PERC-sponsored website [propane.com/agriculture](http://propane.com/agriculture). It’s another valuable resource that can help boost your knowledge of propane in agriculture.

2. **GET TO KNOW YOUR PROPANE PROVIDER.**

Having a solid relationship with propane provider in your area is a vital step in preparing you to assist your customers with infrastructure and refueling questions. Take the time to identify propane providers with experience servicing agriculture operations. They must be able to work directly with your customers, so don’t hesitate to ask for customer referrals that would qualify and quantify their capabilities.

3. **IDENTIFY POTENTIAL CUSTOMERS.**

Identify potential customers in your area who are prospects for propane-powered equipment like irrigation engines or grain dryers. Drive past the farming operations in your area and look for signs of crop farmers who are already irrigating. Oftentimes you can see the irrigation pump station from the road. Look for diesel tanks to confirm those who are using diesel engines. Look for large grain elevators to identify grain dryer customers.

4. **GET IN TOUCH WITH OEM REPRESENTATIVES AND/OR PERC.**

Contact your OEM representative and ask for information on the propane-powered equipment they offer. They’ll be happy to help you understand the many advantages of offering this equipment and helping your customers make the best choices for their operations.

For additional resources related to propane in the agriculture market, please get in touch with PERC. We would be happy to answer any of your questions or even help put you in touch with others who can help you grow your business.
Why should a farmer care that propane-powered farm equipment produces fewer emissions?

Today, more than ever, sustainability and environmentally friendly practices influence decisions that affect an operation. Propane is a clean-burning fuel that meets Tier 4 regulations outlined in the Clean Air Act without compromising the performance farmers need.

What types of farm equipment can run on propane?

Propane can satisfy most major energy uses: irrigation engines, grain dryers, standby generators, building and water heating, flame weed control, vehicles, mowers, and forklifts.

How does the cost of equipment powered by propane compare with equipment powered by other fuels?

Propane-powered equipment is competitively priced with other equipment for products like grain dryers and heaters for animals, greenhouses, or water. Propane irrigation engines typically cost less than comparable diesel engines. You can help customers compare irrigation engine operating costs using the online cost calculator at <propane.com/agriculture/calculator>.

What incentives are available?

Sponsored by PERC, the Propane Farm Incentive Program is a research program that provides a financial incentive toward the purchase of new propane-powered farm equipment like irrigation engines and grain dryers. In exchange, participants agree to share real-world performance data with PERC.

Other programs offered through national, state, and local organizations help farmers experience the benefits of propane technology while helping offset the initial costs of propane equipment.

Are propane-powered engines as durable as diesel engines?

The biggest factors that contribute to long engine life are properly sizing, loading, and maintaining the engine. Regular maintenance intervals and cost per interval differ between propane and diesel, but overall costs are projected to be equal or slightly in favor of propane-powered engines. And with propane units costing less to purchase than comparable horsepower diesel engines, the advantages are clear.

A propane engine is certified for a 5,000-hour emission life. Some have reported engine life as high as 15,000 to 20,000 hours for properly sized, operated, and maintained propane-powered engines. You should also consider offering a service plan to help ensure the life of a customer’s equipment.
What horsepower or sizes of propane-powered irrigation engines are available?

Most new propane-powered engines today are based on gaseous-fuel prepped gasoline engine blocks. Several models are available from industrial engine suppliers, ranging from 4 cylinder models up to 8 and 10 cylinder models. PERC has partnered to develop several new models in large sizes such as 6.8, 8.0, 8.8, 9.1, and 10.3-liters of displacement, while there are propane-powered engines available up to a 22-liter engine and roughly 300 horsepower. There is a broad spectrum of engine sizes available to meet an operation’s needs.

Visit propane.com/agriculture to learn more about the available engines and engine suppliers.

How much propane does a propane-powered engine consume?

Less than you’d think. New propane-powered engines are more efficient than those produced decades ago. PERC has conducted multiple studies comparing propane engines side by side with diesel counterparts to monitor fuel consumption for conducting similar work. The research found that propane outperformed diesel on a per-dollar basis.

What are the advantages of using propane?

First and foremost, propane is a cost-effective solution for farming operations. This is especially true in the summer, when propane typically reaches its lowest price per gallon and diesel is at its highest. Propane is also more environmentally friendly than other fuels. Engines powered by propane emit fewer greenhouse gases than gasoline or diesel engines.

As an American-made fuel, propane supplies are readily available, making it a reliable fuel for farming operations. And with regular maintenance and proper use, propane-powered equipment can last for decades. The storability of propane adds to its reliability. Properly stored propane will last indefinitely and not deteriorate over time or cause potential waste and pollution like other fuels.

Are propane storage tanks safe?

A propane tank is 20 times as puncture resistant as a typical gasoline, methanol, or ethanol tank. And when properly maintained, they can last up to 40 years.

FACTS ABOUT PROPANE ON THE FARM

- Nearly 40 percent of farms in the United States use propane in their farming and ranching operations to run pumps and engines, heat buildings, and dry and process crops.
- About half of farms in the United States use propane as an energy source in their homes and residences.
- Propane is used on 829,000 U.S. farms for agricultural operations and heating.
RESOURCES TO HELP YOU SELL

These materials are designed to provide you and your sales staff with deeper insight into the agricultural market and propane-powered equipment used on the farm. Always check the Propane Education & Research Council’s Marketer Resource Catalog [MaRC] at propanemarc.com for the most up-to-date versions and to order printed copies or customized materials, when available.
PROPANE REDUCES GREENHOUSE GAS EMISSIONS: A COMPARATIVE ANALYSIS (2009)

This research study, sponsored by PERC and conducted by Energetics Inc., shows that using propane in certain applications produces fewer greenhouse gas emissions (GHGs) than many other fuels. The study compares the GHG emissions profiles of various energy sources in a range of applications. The 13 applications analyzed in the study come from well-established propane markets, such as forklifts and residential water heating, and emerging propane markets, such as desiccant dehumidification and light-duty trucks.
TRAINING MANUAL: DISPENSING PROPANE SAFELY INTO AGRICULTURAL EQUIPMENT

Use this training manual to learn how to properly transfer propane into storage tanks that are permanently mounted on agricultural equipment. This manual includes: training requirements for individuals transferring propane; propane properties and safety; transfer equipment; transfer procedures; propane material safety data sheet; quizzes; answer keys; and a certificate of completion.
TRAINING MANUAL:
MAINTAINING AND REPAIRING PROPANE FUEL SYSTEMS ON STATIONARY ENGINES

Use this training manual to learn the proper procedures for servicing stationary propane engines used in agricultural applications. This manual provides an introduction to the propane engine fuel systems that power both air-cooled and liquid-cooled engines. Also included is a curriculum quiz and answer key, along with recommended lab activities for students.
OFF-ROAD APPLICATIONS OF PROpane ENGINE FUEL

Propane’s role on the American farm extends well beyond the field. In this course, you’ll learn how propane can fuel a variety of important off-road applications like forklifts, commercial mowers, and farm equipment.
PROPANE-POWERED FLAME WEEDING IN CORN, SOYBEAN, AND SUNFLOWER

Propane-powered equipment can provide cost-effective weed control in major row crops. In this handbook you’ll learn key information about the advantages of using propane over chemical and mechanical weed management methods. You’ll also understand how flame weeding works, the equipment components, and recommended dosage for different weed growth stages.
**WALVOORD & SONS**

Having used propane since 1976, the Walvoord family farm continues to rely on the clean, efficient energy for irrigation and much more.

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**CARNAHAN & SONS, INC.**

Carnahan & Sons, Inc. upgraded to a new GSI X-Stream grain dryer — with the help of the Propane Farm Incentive Program — for increased efficiency.
RYAN BERGGREN
Ryan Berggren discusses improving fuel efficiency by upgrading to a new propane-powered engine for irrigation.

DECAS CRANBERRY
Nick Decas, a Massachusetts farmer, talks about the improved efficiency of his cranberry operation with a new propane-powered engine.
PROPANE FARM INCENTIVE PROGRAM

Participants in the Propane Farm Incentive Program discuss their success with the program and the benefits they've experienced by using propane on the farm.

CINCH MUNSON
DIRECTOR OF AGRICULTURE BUSINESS DEVELOPMENT
PROPANE EDUCATION & RESEARCH COUNCIL

MARVIN YOST
PLYMOUTH, NEBRASKA
PROPAANE FARM INCENTIVE PROGRAM BROCHURE
Use this trifold brochure to make a compelling case for the benefits of propane-powered equipment on the farm. It explains how propane can cut fuel costs on the farm and earn farmers a financial incentive toward the purchase of new equipment. This piece can be used as collateral for events and sales calls.

PROPAANE FARM INCENTIVE PROGRAM FLYER
Use this full-page flyer to explain how propane-powered equipment can cut fuel costs on the farm and earn farmers a financial incentive toward the purchase of new equipment. This piece can be emailed and used as collateral for events and sales calls.
PROPANE MOWER INCENTIVE PROGRAM TRIFOLD BROCHURE

Help move a prospect to purchase by introducing them to the Propane Mower Incentive Program. This piece can be used as a leave-behind or for sales calls.
**MARKETING MATERIALS**

**PROPANE FARM INCENTIVE PROGRAM PRINT AD**
An easy and effective way to promote the Propane Farm Incentive Program locally, this ad can be placed in a local publication or used as a flyer to hand out or leave behind at a demonstration or trade show event.

**PROPANE BENEFITS PRINT AD**
Place this ad in publications and newspapers to catch the attention of potential customers and communicate the advantages of propane-powered ag equipment.

**RADIO COMMERCIAL**
Reach your customers in their trucks or at the shop with a pre-produced radio commercial focused on the benefits of propane that you can supply to your local radio stations.

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**PROPANE FARM INCENTIVE PROGRAM PRINT AD**

**PROPANE BENEFITS PRINT AD**

**RADIO COMMERCIAL**
FACT SHEETS
These fact sheets provide an easy-to-understand summary of various propane-powered equipment that can help your customers reduce costs on the farm. Each fact sheet features attractive graphics and straightforward information for easy readability.

- Weed Control with Propane
- Swine Heating Systems
- Grain Dryer Technology
- Clean-Burning Propane-powered Orchard Heaters
- Propane Reduces Greenhouse Gas Emissions

IRRIGATION SELL SHEET
Considering the reduced emissions, reliable performance, and lower cost of propane-powered irrigation engines, it’s no wonder they’re growing in popularity. Use this sell sheet as a tool to support your conversation with potential customers and close the deal.
PROPANE-POWERED IRRIGATION ENGINE REDUCES COSTS, IMPROVES EFFICIENCY FOR FLORIDA DAIRY FARMER

Share this insightful case study with prospective customers. Shenandoah Dairy in Live Oak, Florida, purchased Tier 3-compliant diesel engines to upgrade its 23-pivot irrigation system. Disappointed with the performance of the diesel engines, the dairy then added a propane engine and had incredible results: lower operating costs, an estimated $10 an hour savings in fuel costs, and reduced oil changes.

NEBRASKA PRODUCER IMPROVES EFFICIENCY WITH POWERFUL NEW PROPANE ENGINE

Share this propane success story with prospective customers. Faced with drought-like conditions during the summer of 2012, Marvin Schultis of Schultis Farms in Fairbury, Nebraska, was forced to irrigate longer and more frequently. To reduce his costs and increase efficiency, Schultis took advantage of the Propane Farm Incentive Program and used the incentive to upgrade to a powerful new propane engine.
INDIANA PRODUCER YIELDS HIGH QUALITY GRAIN, IMPROVED EFFICIENCY WITH NEW GRAIN DRYER

Prospective customers will enjoy reading the Carnahan family’s story of reduced energy costs and improved grain quality. Always looking for new ways to increase productivity and save money, Carnahan & Sons Inc. upgraded to a new, propane-powered GSI X-Stream grain dryer. The farm has been using propane-powered grain dryers since 1965, and the newest dryer increased efficiency by 20 percent, reduced energy costs, improved grain quality, and expanded the farm’s marketing window.

NETWORK OF ARKANSAS FARMS SWITCHES TO PROPANE IRRIGATION ENGINES, REDUCES FUEL COSTS

Show prospective customers this great example of fuel cost savings with propane. Swindle Farms in Arkansas reduced its fuel costs by 68 percent per hour by replacing its diesel-fueled irrigation engines with efficient propane engines to irrigate its 8,000 acres of corn, milo, wheat, rice, and soybeans. The engines were purchased with financial assistance from the Propane Farm Incentive Program sponsored by the Propane Education & Research Council.
CALIFORNIA GRAPE GROWER CUTS FUEL COSTS BY 37 PERCENT WITH PROPANE IRRIGATION

When a vineyard switches to a propane-powered irrigation engine and saves 37 percent on fuel costs, it’s something people want to read. Share this case study about Doug Boyer, a California wine grape grower who replaced his diesel irrigation engine with a propane model that complied with Tier 4 environmental standards and was able to significantly slash fuel costs, among many other benefits.

WALNUT FARMER ACHIEVES IMPROVED EFFICIENCY, LOWER ENERGY COSTS WITH NEW IRRIGATION ENGINE

Potential customers will be interested to know how Eric Montemagni, a second-generation walnut farmer, relied on propane to reduce monthly operation costs, improve irrigation efficiency, and meet California’s strict environmental regulations. The answer: He chose a propane-powered Origin 8.0-liter irrigation engine for his 150-acre farm. The upfront costs of the new propane engine were eased considerably thanks to the money he received through the Propane Farm Incentive Program.
NEW PROPANE DRYER INCREASES CROP QUALITY FOR NEW YORK GRAIN PRODUCER

Family-owned Maple Lane Farms in Marietta, New York, has grown from a small, 100-acre farm to a 1,000-acre operation. Along with 450 dairy cows, Maple Lane Farms produces corn, soybeans, wheat, and hay. After 30 years of use, they decided to upgrade their 1980 grain dryer and install a new, more efficient propane-powered model. The result was 38 percent lower drying costs and improved final grain quality.

NEBRASKA FARMER INCREASES HORSEPOWER AND EFFICIENCY WITH PROPANE IRRIGATION

When Bud Walvoord switched to a pivot irrigation system, he needed new engines with more horsepower to replace the propane engines he’d been running since 1976. After considering diesel, he again chose a propane-powered engine for its higher horsepower and smooth RPM. The upgrade increased overall fuel efficiency and lowered the operation’s fuel costs.
NEBRASKA FARMER INCREASES IRRIGATING HOURS, REDUCES FUEL COSTS WITH PROPANE IRRIGATION

With Nebraska’s history of notoriously hot and dry summers, roughly half of the state’s cropland and pasture is irrigated. Wayne Brinkmeyer’s operation is no exception. When he needed a new power supply for his 1,600-acre operation, he upgraded to a clean, cost-effective propane engine. It reduced fuel costs by 38 percent compared with diesel and 20 percent compared with electric motors.

DUAL-FUEL PROPANE IRRIGATION SYSTEM CUTS EMISSIONS, COSTS FOR CALIFORNIA PRODUCER

California’s warm climate means year-round irrigating for Maddox Farms. With the farm’s legacy diesel engines becoming more expensive to operate, the farm installed two CCAT propane + diesel dual-fuel retrofit systems. The CCAT systems, used to pump water to irrigate more than 640 acres of wine grapes and almonds, saved Maddox Farms more than $15,000 in fuel costs in their first year.
INNOVATIVE PROPANE FLAME WEEDING SYSTEM: AN EFFECTIVE, COST-EFFICIENT WEED-KILLER FOR ORGANIC FARMER

After unsuccessfully testing many organic-approved weed control systems on its 300-acre crop rotation of corn, soybean, spring alfalfa, and cover crops, Stanislav Organic Farm participated in a research study to test a propane flame weed control system. The new technology helped Stanislav Farm control more than 95 percent of its weeds while reducing labor and fuel costs.

GEORGIA COTTON, VEGETABLE PRODUCER CUTS FUEL COSTS WITH PROPANE IRRIGATION

When Pat Lariscey added additional pivots to his irrigation system, he experienced a loss of power and performance with his diesel-powered engine. By upgrading to a propane-powered irrigation engine, he was able to improve efficiency and reduce his overall fuel costs for his 700-acre cotton and vegetable operation.
To get the most up-to-date resources and materials found in this toolkit, visit propanemarc.com/agdealer.

To learn more about propane-powered agriculture equipment and the Propane Education & Research Council, visit propane.com/agriculture.

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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.