

NEW PROPANE DRYER INCREASES CROP QUALITY FOR NEW YORK GRAIN PRODUCER

A PROPANE CASE STUDY

Established in the 1920s, Maple Lane Farms in Marietta, N.Y., has grown from a small, 100-acre farm to a 1,000-acre family-owned business. Along with 450 dairy cows, Maple Lane Farms produces corn, soybeans, wheat, and hay. Now the grandchildren of the farm's original owners, Tim, Charlie, Ed, and Karen Leubner, oversee its day-to-day operations.

As the farm has grown, the Leubners have focused on ways to increase overall productivity while keeping costs low. In 2013, they decided it was time to replace the farm's older model Mathews Company (M-C) 24-foot grain dryer, originally purchased new in 1980.

MAKING THE UPGRADE

The Leubners have used propane to dry grain since they purchased their original M-C dryer. They considered other dryers but gravitated back to M-C, a company they trusted for its efficiency and reliability. They were especially interested in the M-C Trilogy series, which offered enhanced efficiency and special add-on features like AccuDry, which measures incoming and discharged grain moisture, and adjusts the dryer operation for accurate and reliable moisture control.

The Trilogy dryer also offered vacuum cooling, a setting previously available only in tower dryers. Vacuum cooling is considered the most energy efficient method of drying grain, allowing producers to cut their fuel costs while producing a high quality end product. The Propane Education & Research Council (PERC) partnered with Mathews Company to partially fund the research and development of the energy-efficient design.

Tim Leubner learned that the M-C Trilogy dryer was eligible for a purchase

COMPANY

Maple Lane Farms
Marietta, N.Y.

CHALLENGE & SOLUTION

After 30 years of use, Maple Lane Farms decided to upgrade their 1980 Mathews Company (M-C) dryer for greater efficiency and reliability. They installed a new M-C Trilogy series dryer, which reduced their drying costs by 38 percent and improved final grain quality on their 1,050-acre corn, wheat, and soybean operation.

RESULT

- New equipment reduced drying costs from 26 cents per bushel to 16 cents, a savings of 38 percent.
- The dryer's AccuDry technology dried grain consistently for improved overall quality.
- The propane-powered dryer expanded Maple Lane Farms' marketing window, allowing them to harvest earlier and get crops to market faster with less crop loss.

"It's very consistent with what's coming out, it's a lot more accurate, and the grain is much better."

Tim Leubner



incentive through PERC's Propane Farm Incentive Program from an article in American Agriculturalist magazine. It was the \$5,000 incentive and the trusted name brand, Mathews Company, that persuaded him to apply for the program. According to Leubner, filling out the online application was easy and he received a call from PERC within just a few days of completing the form.

"The process was amazing," Leubner said. "I use my phone for everything, since I don't use a computer. I filled out the application right on my phone. It was so simple."

IMMEDIATE RESULTS

By switching to the new, more efficient M-C Trilogy dryer, the Leubners reduced their drying costs from 26 cents per bushel with their old machine to 16 cents per bushel with the new model. At the end of the 2013 drying season, the Leubners calculated they had cut their overall drying costs by 38 percent per bushel. The efficiency was a big surprise to the Leubners who were used to the irregular performance of their 1980 dryer.

"Coming from a 1980 dryer to a brand new one — we were loving it," Leubner said. "It was like getting a brand new car."

Another benefit was the improvement in the quality of the finished grain. The older dryer was so slow that the Leubners ran it at a hotter temperature to ensure it would be able to dry the entire crop. After upgrading, they saw an immediate difference in the speed of the drying process. The AccuDry system further enhanced the drying process by adjusting the temperature and drying speed based on incoming grain moisture. The result was a consistent and high-quality finished grain.

"The new dryer always puts corn out at the same moisture," Leubner said. "It's very consistent with what's coming out, it's a lot more accurate, and the grain is much better."

LONG-TERM BENEFITS

Drying grain with propane can be an effective strategy to prepare crops for market sooner to take advantage of premiums and higher market prices. Leubner hopes to use the new dryer to get crops out of the field sooner for added market flexibility.

"We used to let our grain dry in the field," Leubner said. "But with our new dryer being so efficient, we'll be able to start harvesting earlier and get better grain quality."

FOR MORE INFORMATION

To learn more about the propane-powered grain dryers, the Propane Farm Incentive Program, 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.