

## For Immediate Release

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### **MATHEWS COMPANY INTRODUCES ENERGY EFFICIENT TRILOGY VACUUM COOL PROFILE DRYER**

Crystal Lake, IL- Mathews Company (M-C), a global manufacturer of grain dryers, introduces the Trilogy Series, a low profile dryer series that dries grain in the producer's choice of one of three easily interchangeable modes of operation: Full Heat; Pressure Heat/Pressure Cool; and for the first time, a third choice: Pressure Heat/Vacuum Cool.

The significant feature of the Trilogy is the vacuum cooling option that typically has been available only in tower dryers. Vacuum cooling is considered the most energy efficient way to dry grain. On average, vacuum cooling uses less energy than traditional profile dryers which dry in only a pressure heat/pressure cool mode. Producers, who have traditionally preferred a low profile dryer, are now able to realize the fuel economies of vacuum cooling without having to change their grain management set-up to accommodate a taller tower dryer, in order to get this important fuel savings feature.

The Trilogy project has been partially funded through a grant made available from the Propane Education & Research Council (PERC). "We are looking for new technologies that will both advance farm productivity and enhance safety," says Mark Leitman, Director of Agriculture Programs for PERC. "We're striving to help farms become more profitable, so propane remains a viable solution on the farm and helps keep them competitive in a global economy."

The Trilogy Series allows low profile users the vacuum cooled energy savings the tower dryer provides by reclaiming heated air from cooling the grain, resulting in less fuel usage and significant dollar savings. After blending ambient air drawn from outside, the pre-heated air is returned to the fan. This, in turn, lowers energy consumption and produces maximum efficiency.

“Two harvest seasons worth of testing throughout the Midwest proved the effectiveness of the vacuum cooled / heat reclamation process,” says Joseph Shulfer, Director of Engineering and Support Services for Mathews Company and Trilogy Project Manager. “Because of the new design, extensive testing was performed on the air and heat distribution of both the cooling and heat plenum(s).”

“On-going M-C research shows as the grain travels vertically downward through the dryer, the grain's temperature is elevated during the drying process. Once the grain enters into the final stage of the dryer, the heat, which would otherwise be expelled to the ambient surroundings, is transferred as incoming (cold) air through a heat transfer process. As the grain cools, the incoming air is pre-heated and a reduced amount of heat is required to elevate the air's temperature to the desired heat plenum operating set point. Typical vacuum cooled tower dryers can expect to achieve reclamation efficiencies of 20% and higher,” said Shulfer.

As demand for more fuel efficient dryers continues to grow, so does the desire for easy operation. M-C's easy-to-use Pinnacle Lite PLC-based control system comes standard on all M-C dryers. The state-of-the-art system has many standard features not found with other dryer control systems. The system includes a built-in fail-safe mode of operation which enables the user to operate the dryer in manual override with zero downtime. Specific to the Trilogy Series, changing between drying modes with a single flip of a switch is easier than any other dryer in the

industry. While most producers will remain with their one or two preferred modes of drying, it is simple enough to switch to any of the three.

M-C research shows the impact the Trilogy Series will have on the industry is going to be significant. As the trend continues for end-users to shift from outsourced drying to self-drying by expanding their grain systems to include their own dryer, end-users are seeing their profit margins increase. “At Trilogy’s initial debut at the 2011 National Farm Machinery Show in Louisville, KY, while still in the R&D development phase, it seems we can’t get the Trilogy to market quick enough,” says Shulfer. M-C’s research continues this harvest season to gather additional data. “Interest is peaking,” says Shulfer. “We are experiencing an increased demand from these producers who are seeking a solidly built, easy-to-use, energy efficient dryer they can depend on; Trilogy is their answer.”

Trilogy is available for on-farm producers in three different sizes: T2030, T2440, and the T2850. The Trilogy Series is available in both propane and natural gas options. For more information, contact your local M-C dealer or [mcsales@mathewscompany.com](mailto:mcsales@mathewscompany.com).

Headquartered in Crystal Lake, IL (U.S.A), Mathews Company has been a leading manufacturer of high quality innovative agriculture equipment, specializing in grain drying since 1954.

Mathews Company (M-C) “*Means Commitment*” and strives to provide superior products and unmatched service through innovation, expertise and quality. M-C dryers are available through authorized dealers worldwide. The company’s web address is [www.mathewscompany.com](http://www.mathewscompany.com).

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