



A close-up photograph of a corn cob and a green leaf. The corn kernels are golden and glistening, while the leaf is a vibrant green. The background is dark, making the corn and leaf stand out.

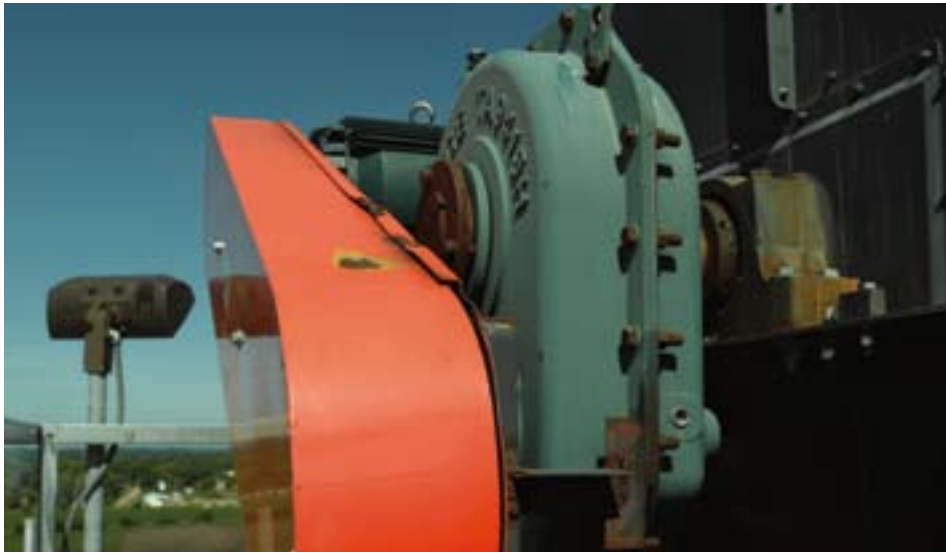
# Green Gold

## DODGE<sup>®</sup> PRODUCTS HELP CORN PLUS FUEL AMERICA

Traveling through Southern Minnesota's farm country leads you past fields and fields of corn. In fact, more corn has been planted here this year than ever before,

as farmers work to meet the needs of a unique production facility that's turning those golden kernels into another sort of gold: ethanol.

**W**ith prices at the gas pump soaring to record-breaking highs and a push to reduce dependency on foreign oil, the rush is on to increase capacity for the production of corn-based ethanol, a substance that, when mixed with gasoline, creates E85 fuel. And if the increase in corn production weren't enough, added evidence that this relatively new fuel source is in increasing demand is the fact that, according to U.S. government figures, there are currently more than 50 new ethanol plants under construction.



**Leading the Way**

Corn Plus, located in Winnebago, Minnesota, is one of the largest ethanol plants in the state, producing 45 million gallons annually. Corn Plus is a farmer-owned cooperative venture with about 750 shareholders who also supply the corn for the plant.

The main argument against ethanol has always been that producing the product takes as much energy as the product itself

contains. But Corn Plus has turned that argument on its ear. In 2005, Corn Plus became the first manufacturer in the world to make ethanol production truly energy efficient. By installing a fluidized bed biomass incinerator that burns recycled ethanol by-products, Corn Plus makes its own steam to power the plant, reducing the use of natural gas by 56 percent. While fluid bed technology has been around for quite some time, Corn Plus is the first in the ethanol industry to use it.

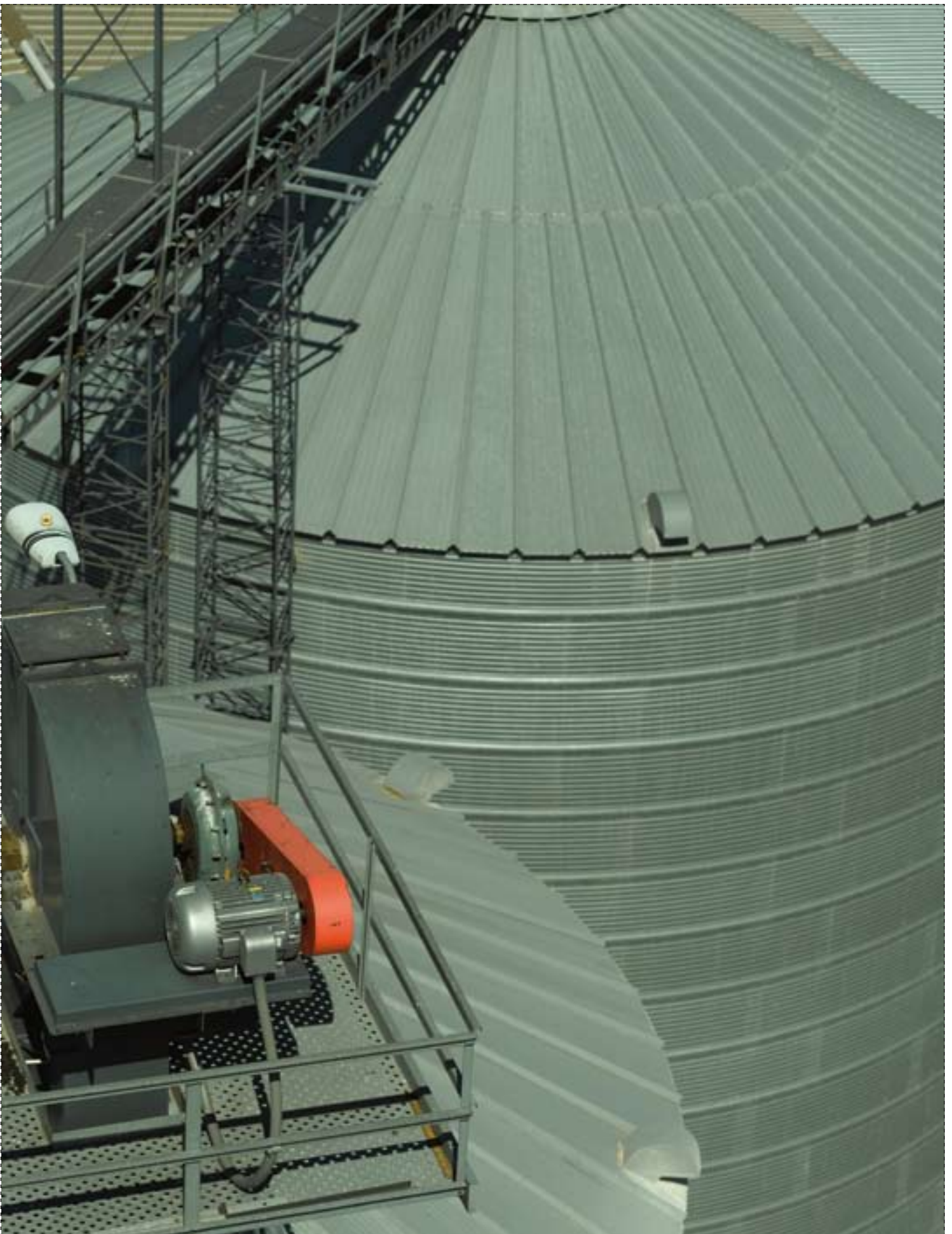
Plant Manager Matt Rynearson, says Corn Plus is definitely not a cookie cutter plant. He's proud that the company is dedicated to investigating the latest technology and choosing the best products and believes that everyone at the plant shares the same goal: making the most ethanol from the least amount of corn.

"My job is to make sure that everyone in the plant has the right tools and equipment to do the job," explains Rynearson. "We all work hard to run this plant as efficiently and as safely as possible."

**Performance You Can Count On**

One key to plant efficiency is uptime. Corn Plus operates 24/7 with planned shut down days for maintenance. "We can't afford to be shut down unexpectedly," says Rynearson. "If we are not up and running as planned, we can't have a successful operation. Uptime is important, and equipment reliability is the number one issue."







When you consider how many conveyors are used in the process of turning corn into ethanol, it's easy to understand why the conveying equipment is a critical focus for the plant. "We constantly are moving raw material into the plant and then moving the product in one form or another from one process to another," explains Rynearson. "With moving material from the dryer, the fluid bed, and the pelletizer – there's a lot of ground to cover in this plant."

Rynearson says he and the maintenance manager share the responsibility of choosing the products used in the plant, and they strive to put in the best equipment that they can. Products have to perform in a tough environment, working through steam, moisture, and severe temperature variations. That's

*"I can tell you that if Dodge produced an inferior piece of equipment, we wouldn't be using it. I guarantee you that we've stuck with Dodge because it's treated us well."*

Matt Rynearson, plant manager, Corn Plus

why you'll see Dodge® TORQUE-ARM® reducers and Dodge bearings on all of the conveyors.

"No one wants to be here in the middle of the night replacing equipment," says Rynearson. "The Dodge product is reliable and has treated us well over the years. Based on past experience, these are the products that we'll continue to use."

**Problem-Solving Products**

Ward Anderson, Corn Plus maintenance manager, agrees that reliability is the key, but he also says the Dodge products are easy to install and easy to maintain. "I have been very pleased with the Dodge equipment, especially the bearings," says Anderson. "They are easier than others to install, and ease of installation is

especially important to us in the middle of winter when you are working outdoors. A bearing that goes on easy, well it makes all the difference.”

Anderson also looks at Dodge products as problems solvers. For example, they needed a reliable bearing cooling system to be used on the main exhaust fan on the bag house—a critical application in the plant. “This fan pulls air through the bag house, capturing all the dust particles from the process,” explains Anderson. “If we lose this fan we have to shut the operation down, causing the plant to lose efficiency.”

Anderson says they tried a water-cooled system, but after repairing it two separate times, he knew he needed to find a better solution. What he found was the Dodge Cool Lube system that he attached to a Dodge bearing. Designed specifically for industrial fan applications, the Dodge Cool Lube system enhances bearing operation by continuously cooling and filtering the oil while the fan is running. “I like the concept of the Cool Lube system,” says Anderson. “It keeps the oil cool in the summer and warm in the winter. It keeps oil on the bearing all of the time, and it filters the oil. The system is working real well and I’m happy with it.”

### Making a Difference

Corn Plus has expanded over the years, embracing new technologies and becoming more energy efficient. Plant officials also focus on the products used in the plant, choosing those that help reduce maintenance costs and increase uptime. And it’s these same choices that will impact Corn Plus’s efforts to help meet the growing demand for alternative fuel. That’s why Rynearson says he has no hesitation in selecting Dodge gear reducers and bearings.

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**Top:** The Dodge Cool Lube System enhances bearing operation by continuously cooling and filtering oil. **Bottom:** Products like the Dodge TORQUE-ARM must perform in a tough environment and severe temperature variations.

