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Fertilizer company plants seeds of growth

By **Rachel Melcer**

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Mike Stegmann smiles as he strolls past towering white peaks of fertilizer pellets in an immense new storage and shipping facility, dubbed "the cathedral" by one of his Lange-Stegmann Co. employees.

And when he describes the process by which a nearly-done production plant soon will turn out loads of his firm's specialized fertilizer, called stabilized nitrogen, Stegmann's excitement is palpable.

"For the first time in a long time, this industry is very, very exciting and growing," he said.

At Lange-Stegmann's riverfront headquarters, just north of downtown, that's obvious. The 80-year-old, family-owned company has invested more than \$20 million in its two-fold expansion:

— The stabilized-nitrogen center will be capable of producing 125,000 tons of the fertilizer per year for Lange-Stegmann's subsidiary, Agrotain International Inc.

— And in the 63,000-ton storage facility, urea fertilizer will be unloaded from Mississippi River barges, piled high in one of eight massive bins and then loaded into rail cars for transport to farmers across the upper Midwest.

Both facilities are meant to make the most of recent and disruptive trends in agriculture, from skyrocketing natural gas costs and record-high corn prices, to spiking demand for grain that is pushing farmers to wring more from every acre.

"If we're going to be able to feed the growing population, then fertilizer is

certainly going to be one part of the equation," Stegmann said.

UREA OBSTACLES

His company specializes in urea, a common type of nitrogen fertilizer that is used on crops such as corn, rice and cotton as well as for feeding ornamental turf and lawns. Urea competes with ammonium nitrate, a fertilizer that is more heavily regulated — and therefore harder to get — because it can be a component of both explosives and methamphetamine, an addictive drug.

But urea has a disadvantage. Once applied to a field, it naturally breaks down. Unless the soil is turned over, or the field is watered or rained upon, between 30 percent and 40 percent of the fertilizer dissipates into the air rather than reaching plant roots.

Farmers are increasingly using no-till techniques to reduce soil erosion and cut down on the use of heavy machinery that run on costly fuel. So they don't turn over the soil.

However, they are reluctant to see their investment in urea go up in smoke. The fertilizer is increasingly expensive because it is made from natural gas, which also is at peak prices. In the past, when the cost was lower, farmers would have simply applied 30 percent more urea than they thought their crop needed to account for dissipation.

But no more, said Gene Stevens, crop production specialist at the University of Missouri's Delta Research Center in Portageville.

"The price is just skyrocketing. So the farmers are not wanting to lose any — they want every pound of fertilizer to count," he said. And that adds up to an opportunity for Agrotain.

"It's like an insurance policy for farmers to protect their nitrogen" because it prevents urea from dissipating for nearly two weeks, long enough for rain to fall in a typical growing season, Stevens said.

Stegmann touts the price. Agrotain costs farmers \$5 per acre, on average. But

if they fail to use it, and lose 30 percent of their urea application, the cost to replace that urea is about \$30 an acre.

Just under 6 percent of all urea fertilizer used in the United States last year was Agrotain. Stegmann said he expects that figure to hit just over 7 percent this year.

That's not bad for a product that's been on the market eight years, since Lange-Stegmann acquired the patented technology and formed Agrotain International, Stegmann said. And he expects further growth when the new production facility comes online.

There is a \$4.5 billion global market potential, he said. "And we haven't even begun to scratch the surface of it."

CORE BUSINESS

The urea storage and distribution center is aimed at a different, but related set of agricultural changes.

The core business of Lange-Stegmann for decades has been moving large volumes of bulk, commodity-priced urea fertilizer to growers during a limited planting season.

Most of the firm's customers once farmed within a 150-mile radius of St. Louis — but they gave way to urban sprawl, Stegmann said. So, the company began shipping urea farther away.

At the same time, the high cost of natural gas has driven most urea production to places such as Asia and Latin America, where the raw material is cheaper. Urea is shipped to American farmers through New Orleans and up the Mississippi River.

Lange-Stegmann's location is an ideal point for transferring bulk urea from river barge to rail, Stegmann said. It is the northernmost point on the Mississippi that doesn't freeze, or involve going through locks that add shipping charges.

To capitalize, the company built the center, which is the nation's largest inland river fertilizer import terminal. It added rail tracks, and struck a deal with the Burlington Northern Santa Fe Railway to load and ship unit trains of up to 100 cars carrying nothing but urea.

Shipping with unit trains can save Lange-Stegman as much as \$1,000 per rail car, said Kevin Kaufman, the railway's group vice president of agricultural products.

Fertilizer shipping has become increasingly important to the railway, he said. The unit trains will move to designated transfer points where urea can be loaded into trucks or picked up by distributors, mirroring the distribution system established for shipping whole grains such as corn.

"It's a big business. We're talking about thousands and thousands of cars" moving fertilizer, Kaufman said.

Approximately 5 percent of all urea used in the United States will pass through Lange-Stegmann's facility in its first full year of operation, Stegmann said. His goal is for that figure to hit 10 percent "within a few years."

rmelcer@post-dispatch.com | 314-340-8394

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