

Stopping Nitrogen Loss

Opening Of St. Louis Urea Center Highlights Effects Of Agrotain

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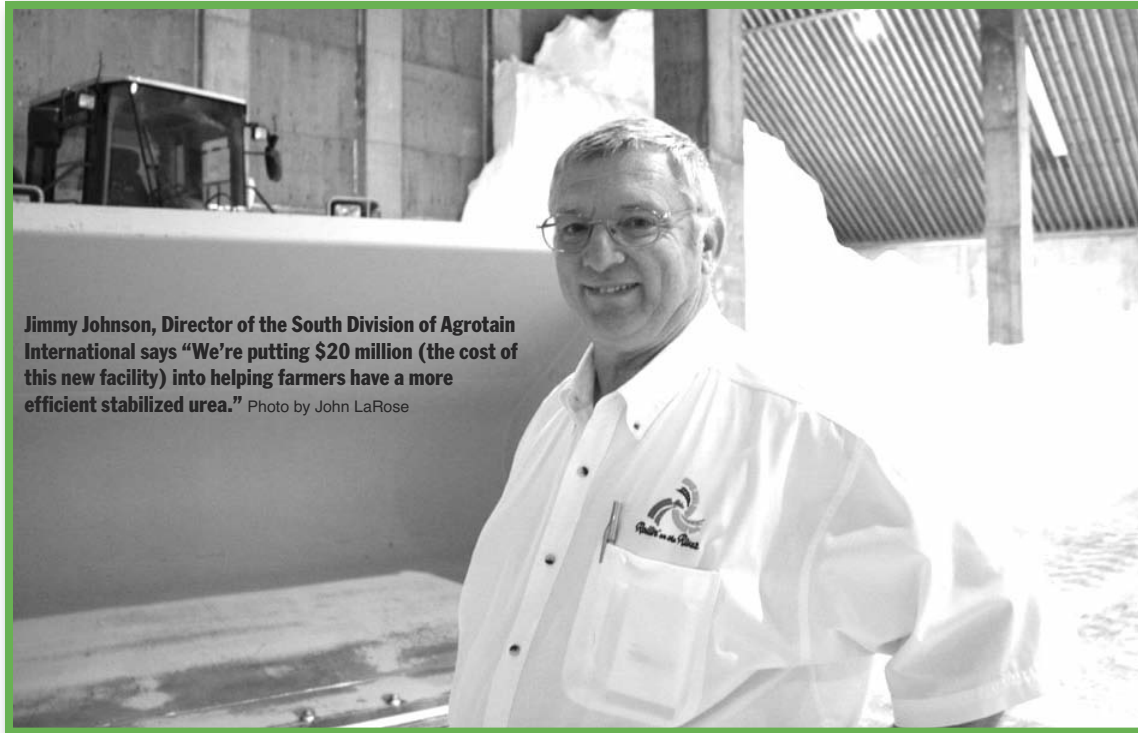
ST. LOUIS, MO.

The nation's first and largest inland urea import terminal was dedicated recently with national and international visitors present. The St. Louis Urea Center and Stabilized Nitrogen Center is located at the Lange-Stegmann Company and Agrotain International Headquarters, One Angelica St. in St. Louis.

According to Allen Sutton, vice president of Business and Development for Agrotain Inter-

national, they have an additional way to increase their nitrogen efficiency. It extends and gives farmers a better product that will provide more complete protection and maximum return from their nitrogen dollar."

Before Agrotain, farmers had to put out more fertilizer. Now, with the cost of fertilizer so high, they have to pursue ways to protect the product they use. Farmers have been losing 30 percent or more of their urea when it has been surface applied. With Agrotain, the volatilization is controlled. Then with the nitrification in-



Jimmy Johnson, Director of the South Division of Agrotain International says "We're putting \$20 million (the cost of this new facility) into helping farmers have a more efficient stabilized urea." Photo by John LaRose

national, the purpose of the plant is to transform urea into stabilized nitrogen.

"We feature three products that are going to be manufactured here," he said. "One of the agriculture products is SuperU®, which is a stabilized nitrogen that's not volatile when applied to the surface and also contains a nitrification inhibitor, which reduces nitrogen losses from denitrification and leaching."

In addition to the SuperU® product, the company also will be manufacturing two turf grade materials. One is UFLEXX®, the other is UMAXX®. Both of these materials contain a urease inhibitor and a nitrification inhibitor, which produces a stabilized nitrogen, providing greater efficiency, environmental safety, and the nitrogen needed by plants. Not only does this produce greener lawn, it also, in the case of farmers, produces additional bushels for each nitrogen dollar, Sutton added.

Agrotain was first launched in 1996 as an additive for urea and continues as a major product in the nitrogen industry today. Agrotain International was formed in 2000, when the assets were purchased by Lange-Stegmann Company. The division of Agrotain International was created to focus on more efficient nitrogen.

"We're totally about nitrogen and all of our products are designed to make nitrogen more efficient," he added.

Prior to Agrotain's debut, the product urea was not the best choice for surface application because much of the nitrogen could be lost through volatilization. Back then, many folks who did surface application would depend on ammonium nitrate, or nonvolatile sources of nitrogen.

"Urea, on the other hand, had to be incorporated immediately which took it out of the realm of no-till possibilities and pastures; or you could apply more," Sutton said. "Unfortunately, with today's cost of nitrogen that option is not viable. You have to make the best of what you apply the first time. So that's Agrotain's fit. It controls volatilization for about two weeks allowing time for rain to occur and carry the urea into the soil."

Agrotain is a stand-alone product. It's a Urease inhibitor that should be applied at the dealership to the urea in the blender. That same technology is utilized in this plant just dedicated, but it's homogeneously inside of each granule, along with a nitrification inhibitor.

Jimmy Johnson, Director of the South Division of Agrotain International, works on the marketing side of Agrotain.

"We're putting \$20 million (the cost of this new facility) into helping farmers have a more efficient stabilized urea," he said. "By adding the nitrification and the Urease inhibitor materials to the urea in the phase modifier system here, we are building a urea product that will perform more efficiently. It's a three-action product that will control ammonia volatilization, as well as the leaching and denitrification. Agrotain has been a very stable and standard product for many growers in my division and now with the

hibitor, which is an addition for the SuperU® product, they can extend that nitrogen availability to that plant longer by reducing the leaching and denitrification.

"With the wet conditions that we had this spring, much of the nitrogen applied to the field was lost," Johnson said. "When you have these wet springs you're going to lose nitrogen to denitrification. SuperU® is a product that will help farmers in that situation."

While Agrotain became available in 1996, the opening of the new facility gives everyone connected a feeling of accomplishment and pride in providing this premium stabilized nitrogen.

"This facility has a capacity for manufacturing 125,000 tons of stabilized SuperU® annually," Sutton said. "Agrotain growth will still continue wherever there are dealers trying to prevent volatilization, but for those needing longer protection of their nitrogen this facility provides the answer."

Johnson also was involved in the research conducted by some of the universities checking the effectiveness of this product. That includes Dr. Rick Norman with the University of Arkansas, Dr. Pat Bollich at LSU, and Dr. Tim Walker at Mississippi State University.

"In 2002, Dr. Norman ran volatilization tests to measure the amount of ammonia that comes off the field where the urea is applied," he said. "Also, all of the researchers did yield studies, and compiled an average of 178 side-by-side comparisons over a three-year period. The Agrotain stabilized urea provided about a 14-bushel increase"

Dr. Jac Varco at Mississippi State University conducted N-15 studies for three years. His result showed the plants were able to utilize approximately 20 percent more nitrogen when urea or UAN was stabilized with Agrotain.

Basically, over the last 10 years, the company has developed, tested and now is online to provide this product to the farmers.

"It has given the farmers a tool they did not have before Agrotain came on the market," said Johnson. "I've had aerial applicators say it gives them more opportunities to put out the urea. When the ground was wet previously, you could not put urea out because that would increase the volatilization loss.

"With Agrotain, you reduce that volatilization in those wet conditions," he added. "Some aerial applicators say they get two more days of flying after every rain shower and farmers are able to put out the recommended amounts of nitrogen now and not have to worry about going back because they know the nitrogen is going to be there. Farmers have seen with their yield monitors that they get a more consistent yield across the whole field. In those low, wet spots, where there once were more losses, Agrotain protects against the losses so they get better rice yields on lower ends of the fields where it takes a long time to get the water across. They've seen that those lower paddies have increased yields and it brought the yields up across the whole field." Δ