



well positioned for **SUCCESS**

New flour mill in ideal location to expand ADM Milling's Midwest customer base

by Arvin Donley

ADM Milling's new flour mill in Mendota, Illinois, U.S., is the largest mill built from the ground up in U.S. history in terms of production capacity.

The first thing you notice about ADM Milling's new flour mill in Mendota, Illinois, U.S., is its size. The spacious seven-story, 186,000-square-foot facility is the largest flour mill ever built in the United States from the ground up in terms of daily production capacity. At 30,000 cwts of capacity, it is the largest ADM Milling plant and the fourth largest flour mill in North America.

The second thing you notice is its remote location, about 100 miles west of Chicago, which is the nation's third largest city and home to many of ADM Milling's largest flour customers.

It begs the question: why Mendota?

James Harper, plant manager, in an interview with *World Grain*, explained that Mendota, despite its rural location, is the perfect spot for the mill.

"There are three reasons we chose the Mendota site," Harper said. "ADM already had a grain terminal there and an existing producer base that we buy corn and soybeans from and some wheat as well. You can originate soft wheat locally and have good rail access for hard wheat. Having the Burlington Northern track right there made it very appealing.

"It is also in close proximity to Interstate 80 as well as I-39 and I-88 so we can really hit a variety of markets. We wanted to increase our competitiveness in the Chicago market as well as open up opportunities in other markets."

Those markets include western Wisconsin and eastern Iowa, he said.

"We couldn't hit that market out of Chicago like we will be able to in Mendota," said Harper, who has been with ADM Milling for 12 years and worked at several of its largest flour mills, including Beech Grove, Indiana, U.S., Minneapolis, Minnesota, U.S. and St. Louis, Missouri, U.S.

In recent years, ADM Milling has expanded and modernized flour mills in Beech Grove and Enid. But this time, rather than embarking upon another expansion project, ADM Milling chose to close smaller mills in Salina, Kansas, U.S., Minneapolis, Minnesota, U.S. (Nokomis mill) and Chicago and build a new plant in Mendota. Those three mills, which had served much of the same territory that the new mill is targeting, had a combined daily milling capacity of 29,000 cwts, just slightly below the daily capacity at the Mendota mill.

"We considered many options for expanding capacity and improving operational efficiency in the Midwest before determining that Mendota offered significant strategic advantages for our flour milling business," said Kevin Like, president of ADM Milling.

Like noted that in recent years bakers in the Midwest have raised their production capacity.

"ADM is investing to support that growth," he said.

He added: "It's a rare opportunity in the milling industry to be able to build everything from scratch —

LARGEST U.S. MILLS by daily production capacity

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| NORTH DAKOTA MILL & ELEVATOR, Grand Forks, North Dakota, U.S. | 52,500 cwt |
| ARDENT MILLS, Hastings, Minnesota, U.S. | 32,500 cwt |
| MONDELEZ, Toledo, Ohio, U.S. | 31,000 cwt |
| ADM MILLING, Mendota, Illinois, U.S. | 30,000 cwt |
| ADM MILLING, Beech Grove, Indiana, U.S. | 28,000 cwt |



brand new. Often in milling we're adding on to flour mills, integrating. This was an opportunity to build new, from the ground up. Every area of the mill is laced in new technology."

At a Sept. 18 ribbon-cutting ceremony, which included more than 300 employees and guests, Christopher Cuddy, president of ADM's Carbohydrates Solutions division, noted that "ADM has a long history of leading-edge innovation. We are committed to setting the standard for technological innovation in our industry."

INSIDE THE MILL

ADM broke ground on the plant, which sits on 150 acres of land, in June 2017 and had it up and running in July 2019.

"We had some challenges," Harper said. "The weather is a pretty big challenge in this part of the country, and last winter was really difficult. We had to adjust some timelines but we were able to still meet our target date for opening."

Younglove Construction, Sioux City, Iowa, U.S., erected the slipform concrete mill as well as a concrete grain elevator and a feed loadout section of the flour mill.

Most of the equipment inside the mill was supplied by Cremona, Italy-based Ocrim S.p.A. and its North American representative CETEC, with the exception being color sorters in the cleaning house, which were supplied by Thisted, Denmark-based Cimbria. Ocrim was also the supplier of equipment at ADM Milling's modernization project at its Enid, Oklahoma, mill in 2018.

"We partnered with milling equipment supplier Ocrim for this project because of their industry expertise and track record of success," Like said.

The mill consists of three 10,000-cwt units. The A and B units mill hard red winter and spring wheat while the C unit is a swing mill, able to grind soft wheat, hard wheat or whole wheat ground from

Top: All of the milling equipment in the facility was supplied by Ocrim, including these purifiers. Bottom: Three Cimbria color sorters were installed in the mill's cleaning house.



hard winter or spring wheat, including fine whole wheat flour. There is about 2 ½ days of bulk flour storage capacity for each unit.

A separate cleaning house is designated for each of the three milling lines and features wheat cleaners, aspirators, color sorters and scourers. Wheat is tempered for 24 hours on a first-in, first-out basis.

The wheat is then transferred to the milling section, which includes Ocrim's latest generation roller mills — both single and double high rollstands — sifters and purifiers.

"It is all automated with high-level sensors so if a choke shows up somewhere the mill shuts down immediately," said Reed Cody, mill superintendent. "The cleanups are quick and easy here."

He said Ocrim's technology allows the Mendota milling team to be precise in its flour production.

"We also have automated blending by using a whole grain analyzer that sets parameters where we can instantly get feedback for protein while doing wheat blending," he added. "And on the mill side, whenever we are making flour on all three milling units, it lets us know exactly what we're making from a quality standpoint."

Myles Edwards, assistant commercial manager for ADM Milling, who had been based in the decades-old mill in Chicago, said the contrast between the facilities is striking.

"The difference between the milling equipment is night and day in terms of the capabilities and all the

automation behind it," Edwards said.

Energy efficiency and product safety are two of the biggest challenges facing the milling industry today, and the Mendota mill, which employs about 40 full-time workers, features solutions that directly address those hot-button issues.

These include a closed loop variable-frequency drive control for exhaust and pneumatic systems that produces energy savings; bacterial inhibiting sieves in sifters; and stainless-steel spouting and exhaust ducting throughout the mill.

Inside the new 30,000-square-foot warehouse in Mendota is a packaging system, manufactured by Riviere-du-Loup, Quebec, Canada-based Premier Tech, that can fill 18 25-pound and 16 50-pound flour bags per minute. But since ADM Milling's customer base primarily is comprised of large industrial bakers, most the flour produced in Mendota is shipped in bulk by truck.

"The loadout system can fill a truck with 50,000 pounds of flour in as little as five minutes," said Edwards, noting that three trailers can be loaded at once.

Although all of its product is currently shipped by truck, the facility is designed to load flour and millfeed into railcars.

Left: ADM Milling's Myles Edwards, left, assistant commercial manager, and Reed Cody, mill superintendent in the 30,000-square-foot warehouse. Right: The roller mill floor, featuring Ocrim's newest generation roll stands.



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The Mendota property has been the site of an ADM grain elevator since 2007. An additional 2 million bushels of wheat storage was added as part of the mill construction project. Currently, the elevator has 2.75 million bushels of wheat storage dedicated to the flour mill, in addition to 4 million bushels of corn storage.

While the soft wheat is brought in by truck from local farmers, hard winter wheat from the Central Plains and spring wheat from the Northern Plains is shipped in by rail to a loop track at the facility with 110-car shuttle rail unloading capacity.

“One of the things that is pretty neat at this site is that



The bagging system in Mendota is supplied by Premier Tech.

we are able to bring in shuttles of wheat and reload it with shuttles of corn,” Harper said. “That puts us in a very unique position here. There aren’t many of those in the U.S. that have that kind of capability.”

SEEKING GROWTH IN CHICAGO

Even though ADM Milling’s Chicago facility is closed, Edwards said the company will be equipped to better serve its customers in the Windy City.

“With the advanced features and technologies in Mendota, we look forward to expanding our reach and better serving the needs of the Chicago market,” Edwards said..

ADM’s Mendota milling facility will produce several types of whole wheat flour, Edwards said, but no organic flour will be produced there. For now, all of ADM Milling’s organic flour is produced at its mill in Lincoln, Nebraska, U.S.

“We are continually monitoring market demand for organic flour and the need to increase our production,” Edwards said.

Regarding the potential for future expansion in Mendota, Like said: “The facility was designed to meet the production of our existing customers, but there is land available for future opportunities.”

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