By SCOTT KILMAN And BRIAN SPEGELE

WSJ's Brian Spegele has details on China's fast-growing demand for corn. In July, it placed a 21 million-bushel order from the U.S. and purchased another 2.2 million bushels this month. Photo: REUTERS/Jason Reed

China's struggle to meet the growing demands of its middle class is fueling a sudden surge in demand for corn, sending vast ripples across the U.S. farm belt and potentially upending the grain's trade flows around the world.

China's need for corn-which forms the basis of sweeteners, starch and alcohol as well as feed for livestock-was on stark display in July when the nation ordered 21 million bushels of U.S. corn in one hit, more than the U.S. government thought the country would buy in a year. The purchase surprised the market and came as an intense July heat wave was shrinking the potential size of the Midwest crop. China bought another 2.2 million bushels of U.S. corn early this month.

Corn prices, which have nearly doubled over the past year, climbed another 1% Tuesday. The corn futures contract for December delivery at the Chicago Board of Trade rose 7.5 cents to settle at \$7.275 a bushel.

China's influence on corn demand underlines how its fast-growing economy is reshaping global commerce. The nation, with its growing population of 1.3 billion people, has been a major player in commodities markets in recent years.

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China already buys about a quarter of all U.S. soybeans. But its sudden demand for corn caught many off guard. China, which hadn't been a net importer of corn for 15 years until last year, has a vast corn belt of its own and for many years strove to be self-sufficient. And because China is secretive about the levels of commodities it holds in its strategic reserves, the rest of the market can only guess what its supply needs are.

Many attribute the larger-than-expected demand to a growing middle class that is changing its tastes more quickly than anticipated. As the Chinese population becomes wealthier, for example, it is eating more pork. And the Chinese government is pushing its farmers to adopt Western methods of raising their pigs, including feeding them more corn. Citizens are also slurping up juices and other products that include corn-based sweeteners:

Coca-Cola Co. said that its volume in China spiked 21% in the second guarter.

Ma Liangfeng, a 69-year-old retired engineer living in Shanghai, says the array of packaged products lining store shelves was "unthinkable" just 30 years ago. Back then, families had to reserve staple meats like pork for special occasions.

The changes have created big shifts throughout the food chain, including U.S. companies and farmers putting in place infrastructure that will enable massive shipments of grains and other products to Asia.

Many U.S. traders and economists believe the recent purchases signal U.S. sales will grow so rapidly that China could become the biggest foreign buyer of U.S. corn within five to 10 years, dethroning Japan, which bought about 610 million bushels of U.S. corn last year. "We think this is the inflection point," says Brian Schouvieller, a grain marketing executive at CHS Inc., the U.S.'s biggest farmer-owned cooperative. "We believe that, from now, China is going to be a steady buyer."

To be sure, Western executives have been wrong before about China's appetite for foreign corn. A sudden surge of Chinese buying in the mid-1990s sparked talk of a trade boon for U.S. farmers, but it was a blip. While China's middle class is far bigger now, and its gross domestic product grew a blistering 9.5% in the second quarter, economists predict turbulence. Much of China's breakneck growth is fueled by government-led investment, not entrepreneurs, and China's housing market appears to be overheating.

Still, the threat of instability might well work in the favor of U.S. farmers. China's ruling Communist Party worries in particular about food inflation, which could put social stability at risk. In an effort to preserve domestic supplies, the government has already stopped construction of factories that convert Chinese corn into ethanol fuel.

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Increased pork consumption in China is helping drive corn demand. Above, a pig farm in rural Qingdao city in eastern China's Shandong province. CORN.JP
CORN.JP

But rising pork prices, thanks in part to higher demand and the rising cost of feed, accounted for more than a quarter of the 6.5% jump in China's consumer price index in July from a year earlier.

In the eastern province of Zhejiang, pig farmer Qian Fanghua's operation has grown to about 2,000 animals today, from less than 200 pigs four years ago. Mr. Qian's hogs require about 4,000 kilograms of corn-based feed each day.

His growing farm, and others dotted around the country, is one of the reasons domestic corn prices have climbed so high as to make U.S. corn seem affordable.

This year, China is expected to use about five billion bushels of corn to make feed, a growth of 20% from five years ago, according to the U.S. Department of Agriculture.

The USDA now forecasts that China will import 79 million bushels of corn from all sources for the 2011-2012 crop year. But some grain traders are much more optimistic. They said in interviews that they think China wants to buy 200 million bushels of corn from the U.S. alone.

U.S. companies are already investing with China's ever-expanding appetite in mind. Decatur, III., grain exporter Archer-Daniels-Midland Co. said in July that it would build a shuttle-loading grain elevator near St. Cloud, Minn., with the capability of loading trains that are 110 cars long. And Minneapolis-commodity processing giant Cargill Inc. is expanding its corn sweetener factory in Pinghu.

A port terminal in Longview, Wash., scheduled to open this fall is the nation's first in at least two decades for loading ocean-going ships with grain. Grain giant Bunge and two Asian partners invested \$200 million to build it. "The Asia market is the fastest growing market in the world," says Larry Clarke, the venture's chief executive. "We're working to get our infrastructure ahead of it."

Biotechnology giant Monsanto Co. has had talks about deepening ties with Sinochem, the state-owned chemicals conglomerate with which it has had a corn seed-breeding venture in China since 2001.

Ron Litterer, a Greene, Iowa, farmer, says he's paying close attention to China's growth and while he hasn't yet decided to increase his corn planting, that could change. Mr. Litterer raises 1,000 acres of corn and 500 acres of soybeans. "It just makes sense to think they will have to depend more and more on [food] imports," says Mr. Litterer.

For now, the amount of Chinese business confirmed by Washington is relatively small alongside America's total foreign sales. The U.S. exports about 1.8 billion bushels of corn globally.

While nobody in the West knows for sure how much corn China will want to import and how soon, the possibilities fascinate grain traders. According to Michael Swanson, a Wells Fargo & Co. economist, doubling of per-capita meat consumption in China so that it matches the U.S. level would require the country to use an additional 24 billion bushels of com, or about twice what the U.S. produces in a year.

[&]quot;There's not enough grain in the world for them to do that," Mr. Swanson says. "But just moving in the direction is staggering to consider."
-Tom Polansek and Carolyn Cui and Yang Jie contributed to this article.