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## In Lean Times, Biotech Grains Are Less Taboo

By [ANDREW POLLACK](#)

Soaring [food prices](#) and global grain shortages are bringing new pressures on governments, food companies and consumers to relax their longstanding resistance to genetically engineered crops.

In Japan and South Korea, some manufacturers for the first time have begun buying genetically engineered corn for use in soft drinks, snacks and other foods. Until now, to avoid consumer backlash, the companies have paid extra to buy conventionally grown corn. But with prices having tripled in two years, it has become too expensive to be so finicky.

“We cannot afford it,” said a corn buyer at Kato Kagaku, a Japanese maker of corn starch and corn syrup.

In the United States, wheat growers and marketers, once hesitant about adopting biotechnology because they feared losing export sales, are now warming to it as a way to bolster supplies. Genetically modified crops contain genes from other organisms to make the plants resistance to insects, herbicides or disease. Opponents continue to worry that such crops have not been studied enough and that they might pose risks to health and the environment.

“I think it’s pretty clear that price and supply concerns have people thinking a little bit differently today,” said Steve Mercer, a spokesman for U.S. Wheat Associates, a federally supported cooperative that promotes American wheat abroad.

The group, which once cautioned farmers about growing biotech wheat, is working to get seed companies to restart development of genetically modified wheat and to get foreign buyers to accept it.

Even in Europe, where opposition to what the Europeans call Frankenfoods has been fiercest, some prominent government officials and business executives are calling for faster approvals of imports of genetically modified crops. They are responding in part to complaints from livestock producers, who say they might suffer a critical shortage of feed if imports are not accelerated.

In Britain, the National Beef Association, which represents cattle farmers, issued a statement this month demanding that “all resistance” to such crops “be abandoned immediately in response to shifts in world demand for food, the growing danger of global food shortages and the prospect of declining domestic animal production.”

The chairman of the [European Parliament](#)’s agriculture committee, Neil Parish, said that as prices rise, Europeans “may be more realistic” about genetically modified crops: “Their hearts may be on the left, but their pockets are on the right.”

With food riots in some countries focusing attention on how the world will feed itself, biotechnology proponents see their chance. They argue that while genetic engineering might have been deemed unnecessary when food

was abundant, it will be essential for helping the world cope with the demand for food and biofuels in the decades ahead.

Through gene splicing, the modified crops now grown — mainly canola, corn, cotton and soybeans — typically contain bacterial genes that help the plants resist insects or tolerate a herbicide that can be sprayed to kill weeds while leaving the crop unscathed. Biotechnology companies are also working on crops that might need less water or fertilizer, which could have a bigger impact on improving yield.

Certainly any new receptivity to genetically modified crops would be a boon to American exporters. The United States accounted for half the world's acreage of biotech crops last year.

But substantial amounts of corn, soy or canola are grown in Argentina, Brazil and Canada. China has developed insect-resistant rice that is awaiting regulatory approval in that country.

The pressure to re-evaluate biotech comes as prices of some staples like rice and wheat have doubled in the last few months, provoking violent protests in several countries including Cameroon, Egypt, Haiti and Thailand. Factors behind the price spikes include the diversion of crops to make biofuel, rising energy prices, growing prosperity in India and China, and droughts in some regions — including Australia, a major grain producer.

Biotechnology still certainly faces obstacles. Polls in Europe do not yet show a decisive shift in consumer sentiment, and the industry has had some recent setbacks. Since the beginning of the year France has banned the planting of genetically modified corn while Germany has enacted a law allowing for foods to be labeled as “G.M. free.”

And a new international assessment of the future of agriculture, released last Tuesday, gave such tepid support to the role genetic engineering could play in easing hunger that biotechnology industry representatives withdrew from the project in protest. The report was a collaboration of more than 60 governments, with participation from companies and nonprofit groups, under the auspices of the [World Bank](#) and the [United Nations](#).

Hans R. Herren, co-chairman of the project, said providing more fertilizer to Africa would improve output much more than genetic engineering could. “What farmers really are struggling with are water issues, soil fertility issues and market access for their products,” he said.

Opponents of biotechnology say they see not so much an opportunity as opportunism by its proponents to exploit the food crisis. “Where politicians and technocrats have always wanted to push G.M.O.’s, they are jumping on this bandwagon and using this as an excuse,” said Helen Holder, who coordinates the campaign against biotech foods for Friends of the Earth Europe. G.M.O. refers to genetically modified organism.

Even Michael Mack, the chief executive of the Swiss company [Syngenta](#), an agricultural chemical and biotechnology giant, cautioned that the industry should not use the current crisis to push its agenda.

Whatever importance biotechnology can play in the long run, food shortages are making it harder for some buyers to avoid engineered crops.

The main reason some Japanese and South Korean makers of corn starch and corn sweeteners are buying biotech corn is that they have dwindling alternatives. Their main supplier is the United States, where 75 percent of corn

grown last year was genetically modified, up from 40 percent in 2003.

“We cannot get hold of non-G.M. corn nowadays,” said Yoon Chang-gyu, director of the Korean Corn Processing Industry Association.

But the tightening global supply has made it harder to get nonengineered corn from elsewhere. And as corn prices soar, millers and food companies are less able to pay the surcharge to keep nonengineered corn separate from biotech varieties. The surcharge itself has been rising.

Mr. Yoon said non-engineered corn cost Korean millers about \$450 a metric ton, up from \$143 in 2006. Genetically engineered corn costs about \$350 a ton.

In Europe, livestock producers say that regulations on genetically modified crops could choke feed supplies at a time when they are already reeling from higher prices. Even after a new genetically engineered variety is approved for growing in the United States, it might take several years for Europe to approve it for import.

Moreover, European rules require an entire shipment of grain to be turned back if it contains even a trace of an unapproved variety. Such a problem last year disrupted exports of corn gluten, a feed product, from the United States to Europe.

Feed makers and livestock producers want faster approvals and a relaxation of the rules to allow for trace amounts of unapproved varieties in shipments.

Even in the United States, where genetically engineered food has been generally accepted, the wheat industry has had to rethink its reluctance to accept biotech varieties.

Because about half of America’s wheat crop is exported, farmers and processors feared foreign buyers would reject their products. Facing resistance from American farmers, [Monsanto](#) in 2004 suspended development of what would have been the first genetically modified wheat.

But some farmers and millers now say that the lack of genetically engineered wheat has made growing the grain less attractive than growing corn or soybeans. That has, in turn, contributed to shrinking supplies and rising prices for wheat.

Milling & Baking News, an influential trade newspaper in Kansas City, Mo., said in an editorial that companies that used wheat were now paying the price for their own “hesitancy, if not outright opposition” to biotechnology.

*Su-hyun Lee in Seoul, South Korea, and Yasuko Kamiizumi in Tokyo contributed reporting.*

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