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HEADLINE: GENETICALLY MODIFIED FOODS SAFER THAN ORGANIC

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BODY:

Organic foods are generally viewed as the "golden measure" against which the safety and healthfulness of all other foods should be measured. This carefully cultivated perception is used by the organic-food industry to justify the higher price of organic produce. This industry has also campaigned against genetically modified crops, claiming that GM foods - "Frankenfoods" - are dangerous for human health, bad for the environment, unnatural and exploitive of farmers in developing countries.

In a remarkable turn of events, an increasing number of scientific studies have not only demonstrated that these claims have little merit, but also that the opposite is true!

For example, in several peer-reviewed studies Bt-type GM corn has been proved to be on average safer for humans than traditionally or organically grown corn, and Bt-corn and other GM crops have been shown to be both beneficial for the environment and for farmers in Third World countries.

Even the genetic process of transferring DNA between unrelated organisms has been shown to be a common process, occurring trillions of times each second around the world. Indeed, the most commonly grown non-GM wheat in Colorado is a variety that contains half a rye chromosome.

Arguably the most stunning GM crop-related discovery pertains to the demonstration that Bt-corn contains on average 90 percent less cancer-causing mycotoxins than the non-GM corn varieties grown by organic and traditional farmers.

What makes these mycotoxins particularly dangerous for humans is that most types of food processing do not affect the toxic effect. Certain mycotoxins have been

found in food products as diverse as corn flakes and beer.

Three large international studies have recently reported on the mycotoxin content of hundreds of corn samples collected in 18 countries. In one study, the average content of just one type of mycotoxin in non-GM corn samples was about 12 micrograms per gram of seed, whereas the content for GM corn samples was only 1.3 micrograms per gram of seed.

Why does Bt-corn contain such drastically reduced amounts of mycotoxins? The fungi that produce the mycotoxins, *Fusarium* molds, enter corn plants primarily through holes produced by corn borers. Because every cell in Bt-corn is equipped to fight corn borers directly, corn borers that attack such plants are quickly killed and do not replicate, which results in fewer *Fusarium* infections and reduced mycotoxin production.

The general safety of foods containing GM crop-derived products has been further proven by the fact that over a billion people consume such foods on a regular basis, and not a single illness or death has been reported.

In 2002, close to 6 million farmers around the world planted GM crops, and nearly three-quarters of those farmers were in developing countries. The advantages of GM crops for resource-poor farmers is illustrated by a study of Bt-cotton growing farmers in Lang Fang Prefecture in Hebei, China. During the five years in which they have planted Bt-cotton, their incomes have gone up by 30 percent (less money spent on pesticides) and their health and the health of their families has improved due to the reduced exposure to these toxic chemicals. Finally, the quality of their drinking water has improved due to the reduced contamination of their wells by pesticide runoff.

GM crops can yield safer and more nutritious foods, reduce the use of pesticides and thereby help the environment, and help farmers around the world lead better and healthier lives. In light of these developments, it might be time for the leaders of the organic-food industry in the U.S. to begin to think about growing GM crops on organic farms, and to institute policy changes to allow such foods to be sold in organic food stores.

NOTES:

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SPEAKOUT

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