Kraft Nod To Gene-Splicing Provides Food For Thought

By Henry T. Miller

Biotechnology applied to agriculture and food production has had a tough row to hoe. While agribusiness products have been virtually banished in Europe, testing and commercialization have progressed in the U.S. — but only at a snail's pace due to excessive, discriminatory government regulation and fear mongering by activists.

Also hindering agbiotech's advance, large company capitulation to intimidation by anti-biotechnology activists. Two of the world's largest producers of baby-food, Heinz and Gerber, announced in 1996, for example, that they would use only non-gene-spliced materials for their products (even though these are nutritionally inferior or less safe than those made from gene-spliced plants).

More specifically, these companies are boycotting ingredients derived from plants modified so they don't need to be sprayed with toxic chemical pesticides, and from soybeans altered so that high-quality soyprotein is cheaper to obtain.

The food industry's self-destructive fanatical behavior may be waning. At a conference in Chicago last month, Kraft Foods CEO Roger Dermond offered an upbeat view of the role of gene-splicing in food production. "We believe that over time genetically modified ingredients will play a very important role both nutritionally and environmentally in terms of reduction of pesticide use around the world."

"Krafty" Support

This endorsement is important. Kraft, with hundreds of major products and annual revenue of $2 billion, is the only large company to say it will use genetically modified ingredients. Others have said it will use modified ingredients if they are superior to non-modified ones.

Mr. Dermond's comments reflect a broad consensus that the risks associated with new biotechnology products are no greater than with other products, while the benefits are potentially limitless.

Scientists around the world, and even senior EU regulators, agree that new "gene-splicing" technology lowers even further the already minimal risk associated with introducing new plant varieties into the food supply. Thanks to this technology, it is now possible to introduce pieces of DNA that contain one or a few well-characterized genes, while older genetic techniques transferred a variable number of genes haphazardly.

Dozens of new plant varieties improved with traditional techniques of genetic modification such as hybridization enter the marketplace each year without special labeling or premarket review. Foods derived from them are an integral part of European and North American diets; they are at the farmstand and supermarket — and in baby food.

Gene-splicing enhances product safety not only by its greater precision but by exploiting the subtleties of plant pathology.

A good example is so-called "BT corn," created by splicing into commercial corn varieties a bacterial gene that codes for a protein that is toxic to corn borers and pests (and some other insects, but not to mammals).

To Splice Is Nice

As it fearful of the insect pests, the gene-spliced corn also reduces the levels of Fusarium, a toxic fungus often carried into the plants by the insects. Thus, in turn, reduces the levels of fumonisin, a potent fungal toxin that can lead to fatal diseases in horses and swine that ingest infested corn, and cause esophageal cancer in humans.

Thus, using the gene-spliced corn for food processing lowers the levels of fumonisin and other contaminants. By using superior sources of foods that could yield healthier and safer products.

Worse still, Gerber has announced it will use mostly organic corn, which is especially prone to insect and fungal infestations and will probably cost twice as much, because raising corn without insecticides and other chemicals is labor-intensive and produces lower per-acre yields.

Organic corn contains greater amounts of fumonisin and insect parts; in 2002, regulators at the UK's Food Standards Agency found that all six of the organic corns tested had levels of fumonisin far greater than the EC's safety limit (an average of 20-fold higher). And just this month, samples tested for the Hudson Institute's Center for Global Food Issues found that of eleven corn meal samples tested, only two with detectable levels of fumonisin were organic.

Arrowhead Mills — purchased in the U.S. had levels of 2,450 ppt, more than five times the EU proposed standard, and Biona Polenta (produced in Germany and purchased in the U.K. in January of this year) had levels of 3,350 ppt, more than six times the EU standard.

(The FDA's "recommended maximum allowable level is 2,000 ppt.

Is that what mothers expect in baby food? That consistent with the justification from Al Fiergallini, president and CEO of Gerber's parent company, "I have got to listen to my customers. So, if there is an issue, even an inkling of an issue, I am going to make amends."

The food industry understands and aggressively uses advertising and could outspend activists 10,000-to-1 to explain and defend a policy of using the best ingredients and state-of-the-art technology to guarantee a top quality product.

Therefore, Gerber's decision to reject a superior, safer technology can hardly be called "making amends." It is cowardly capitulation. It is selling out the interest of the company, its commitment to making a superior product, and its customers.

It's Not About Food

It is wrong, and in the end futile, to try to mollify extremists. Their agenda is to arrogate control over what research is performed, what tools are used and what products are brought to market.

Biotechnology is just a microcosm of this greater struggle. These extremists' agenda cannot be mitigated by scientifically reasonable arguments, by assuring the primacy of empirical evidence and the scientific method, or by invoking the benefits to the public of new products, choices and competition. There is little common ground to negotiate with such ideologues.

Kraft's posture toward new technology will show that a company can do well by doing good. I think I'll have some Velveta to celebrate.

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