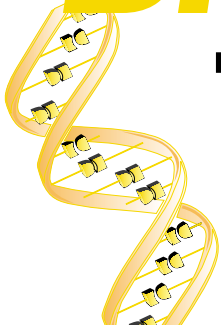


BIOTECHNOLOGY & THE POULTRY INDUSTRY



Poultry producers stand to benefit from the opportunities biotechnology presents for improved flock health and nutrition. Patience and pragmatism are required.

by Thomas J. Hoban

The first products of biotechnology have received widespread acceptance by American grain producers. Over half the USA's soybean crop and over one-quarter of the corn is now grown with seeds developed through biotechnology. These first crops have tended to provide direct benefits to the crop producers, but much less direct benefit to the poultry and livestock industry. That may soon change as new grains will become available for feed that feature desirable characteristics that can lead to improved health and nutrition for birds.

These first products are facing some challenges in the marketplace. The opposition to biotechnology is mainly the result of some well-organized and aggressive activist groups who see biotechnology as a key strategic issue for furthering their political agenda and financing their operations. The poultry industry needs to recognize that such groups are opposed to all aspects of modern agriculture—especially confined poultry operations, vertical integration, globalization and other aspects of what they consider “industrialization.” It is important to know that American consumers do not express support for these groups or their extremist tactics.

Consumer Perspectives

Survey research over the past decade shows that biotechnology is not likely to become an important issue for most

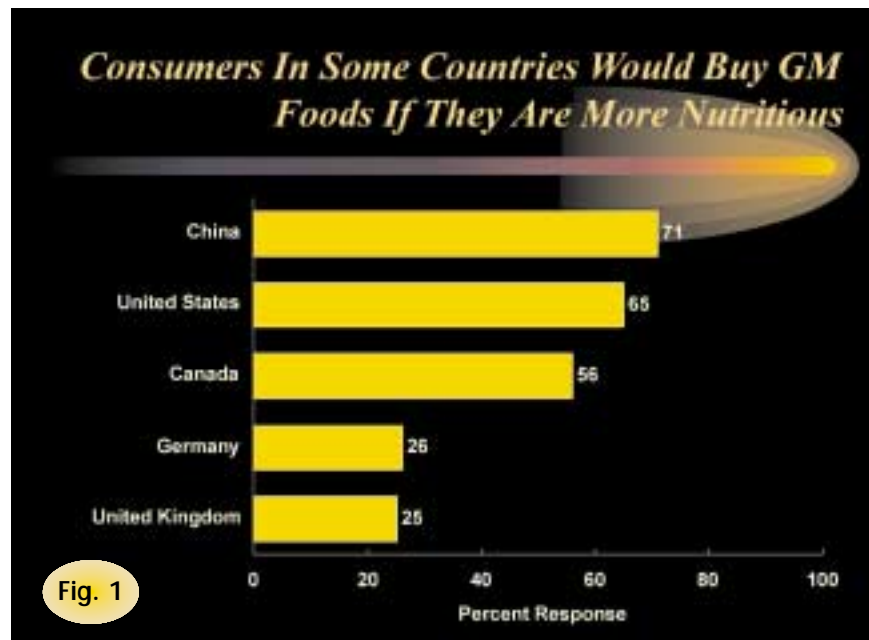


Fig. 1

American consumers. Consumers find biotechnology acceptable, when they believe it offers benefits and it is safe. Surveys have consistently found that a majority of American consumers are willing to buy insect-protected food crops developed through biotechnology that use fewer chemical pesticides, as well as more nutritious foods. American consumers also appreciate the role that biotechnology can play in feeding the world. Research shows that European consumers are much less supportive of all biotechnology applications (Figure 1).

There are, however, some clear differences in consumer acceptance of different products of biotechnology (Figure 2). Insect-protected crop plants are nearly as

acceptable to U.S. consumers as medicine. From the standpoint of the poultry industry, it is important to notice that any mention of animals, in terms of disease protection or faster growth, draws a much more negative response. The poultry industry should be on guard because animal rights activists and others are waiting to launch attacks on any transgenic animals or any other way in which biotechnology will be used in the industry. They will likely find a much more sympathetic public for their complaints about transgenic animals than they have for transgenic plants.

Surveys since 1992 show that relatively few U.S. consumers have heard or read much about biotechnology (Figure 3).

News about the cloned sheep pushed awareness to 50 percent in March 1997. Surveys in the first three months of 2000 show that awareness had fallen back to just over one-third of consumers in the United States. There was a steady climb in consumer awareness in the last six months of 2000, but half of U.S. consumers have read or heard little or nothing about the topic, despite the fact that the most recent survey was conducted right after the story broke on Starlink corn.

Such trends reflect the fact that most people get their information about biotechnology from the media. Media coverage in the USA has generally been sporadic, but balanced, which helps account for our relatively high levels of acceptance. This is

in sharp contrast to the European media, which has played upon fear of the unknown. The European media has also tended to accept opponents' claims without question. Another issue is that many people no longer have a connection to agriculture. Research, in fact, has shown that many consumers are unaware that all of today's foods are derived from plants or animals that already have been genetically modified through traditional, but less precise, selective breeding methods.

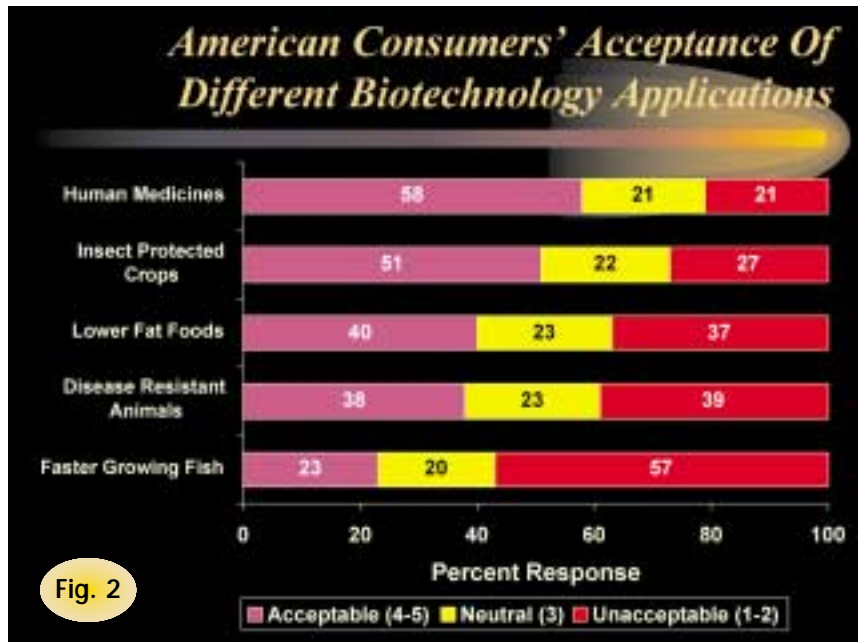


Fig. 2

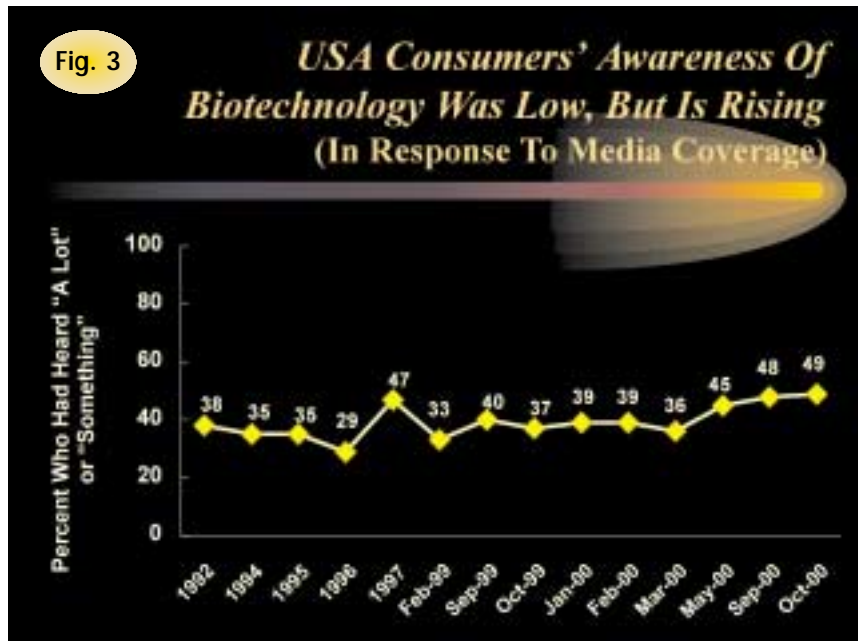


Fig. 3

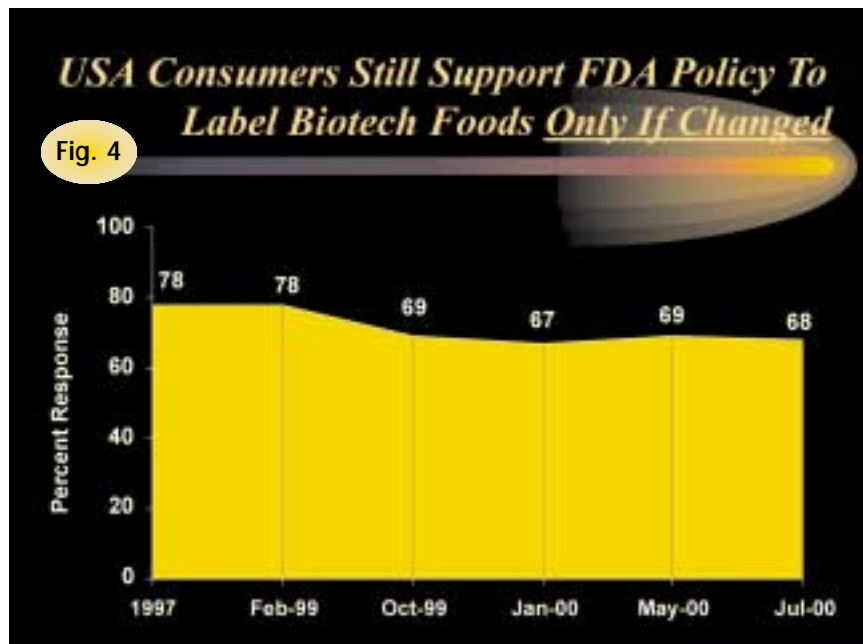
Labeling remains a difficult issue. To avoid confusion, the FDA has determined that a food product should be labeled as a product of biotechnology only if it has been changed in some significant way. National surveys conducted with American consumers have found most consumers support this FDA labeling policy (Figure 4). There is further evidence from focus groups that U.S. consumers are already overwhelmed by the level of detail on food labels and mainly

look for relevant information about nutrition.

Based on the input from three public hearings, the FDA has recognized that the most effective way to allow for informed choice would be a system of voluntary labeling for foods not produced through biotechnology. If the demand for "GM-free" food is real, a market will develop. In this case, meaningful choice can be provided to concerned consumers without imposing costs on or denying benefits to the majority of consumers, who support biotechnology. This may be the only viable and cost-effective option for the poultry industry.

American consumers look to health professionals and scientific experts for credible information, but place relative-

ly little trust in the activists who oppose biotechnology. Research shows that acceptance increases significantly when American consumers learn that organizations such as the National Academy of Sciences and the FDA have determined that biotech-derived foods are safe. In contrast, European consumers express the most trust in those groups that oppose biotechnology. They have much less confidence in government, industry, or even scientists.



Starlink Corn And Consumer Acceptance

The American food and agricultural system was rocked by a controversy associated with the discovery of a corn variety in some processed food products that had only been approved for livestock feed. I had the chance to design and conduct a national survey for the Grocery Manufacturers of America (GMA) right after the announcement of the recall on selected brands of taco shells. If the biotechnology issue was to have any impact on American consumers' acceptance of biotechnology, it would seem that this story would have the greatest likelihood of an impact, at least that is what the opponents who set it up hoped for. In reality, the accompanying graphs show clearly that the Starlink story had virtually no impact on the attitudes or behaviors of the vast majority of U.S. consumers (Figures 2 and 3).

Results demonstrate that U.S. consumers are increasingly aware of agricultural biotechnology but have not changed their food consumption behavior, despite publicity over the recall of taco shells allegedly containing unapproved biotech corn. In addition, the survey showed biotechnology remains acceptable to the majority of Americans as a means to improve farming practices and food quality.

More than half (53 percent) of all consumers interviewed had personally read or heard recent news about food products being recalled by their manufacturer. General awareness of agricultural biotechnology has also risen, with over three-quarters of those interviewed reporting that they had heard or read about this topic. Biotechnology is simply not an issue for the vast majority of U.S. consumers. Survey results demonstrate that recognition of the use of biotechnology has not affected food consumption. One-third of all consumers interviewed reported that they had not avoided or reduced consumption of any foods over the past few months. No one interviewed mentioned avoiding any foods with genetically modified ingredients.

Americans, in fact, remain positive over the benefits of agricultural biotechnology. Two-thirds (67 percent) would be likely to buy produce (such as potatoes or tomatoes) that had been modified through biotechnology to require fewer pesticides (Figure 5). Just as many (66 percent) would buy such produce if it were modified to contain more vitamins and nutrients. This is basically the same response we have seen over the past five years to the same question on other national polls. Direct consumer action is not evident as a result of the recent news

stories. Only 5 percent of respondents reported that they had actually done anything or taken any actions because of any concerns about genetically modified foods. Those that had acted reported that they mainly sought out more information.

This is further evidence that in the USA, the public remains positive and unconcerned about the use of biotechnology in agriculture and food production. This is encouraging because the whole Starlink controversy was never really about science and safety. It was just another battle between the biotech opponents and the biotech industry. This problem was pushed further by politics in that the EPA had been looking to expand their turf and resources by trying to wrestle the food safety responsibilities away from the FDA.

Industry Perspectives

The food industry plays a vital role in shaping consumers' attitudes and appetite for new food items. This is particularly true for the products developed with biotechnology. Opponents have waged an aggressive campaign to pressure the industry into publicly rejecting biotechnology. In such cases, companies have been forced to take steps against their own beliefs and long-term interests. I have recently completed telephone interviews with over 240 key leaders from leading food processing and retailing companies. This provides considerable insights into the real perspectives of the industry.

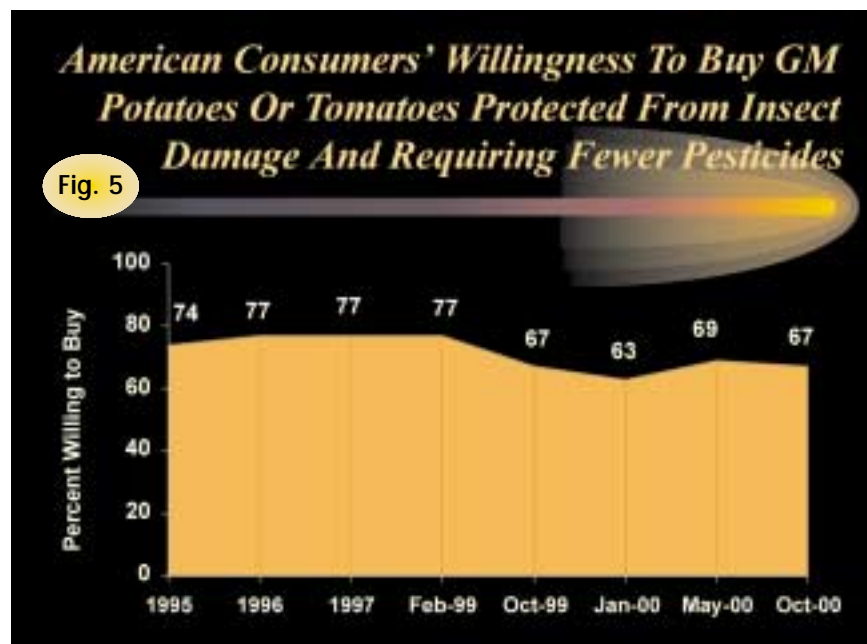
Most of the industry leaders interviewed are quite enthusiastic about the benefits of biotechnology—especially in terms of increased food availability, enhanced nutrition and environmental protection. Most feel that biotechnology has already provided benefits to consumers. Almost all recognize that foods developed through biotechnology are already part of consumers' everyday diet. They clearly do not agree with most of the opponents' claims and tend to have almost no trust in such groups.

Their main concerns involve lack of consumer acceptance, not the safety of

the foods. They express high levels of confidence in the science and the regulatory process. In fact, almost none feel that biotechnology should not be used because of uncertain, potential risks. Most food industry leaders do not feel it is necessary to have special labels on foods developed through biotechnology. They express concerns that such labels would be perceived as a warning by consumers. They are also worried that the need to segregate commodities would pose financial and logistical burdens on everyone in the system, including consumers. Food industry leaders recognize a major need to educate the public about biotechnology. They look to third parties, such as universities and government agencies to provide such leadership.

Keep Your Options Open

Some poultry industry leaders may be considering whether or not it will be in their short-term interests to make some sort of claim that they will not use feed ingredients from biotech crops. This will not be a wise move from a longer-term strategic perspective. First of all, such a promise will be very difficult and costly to keep. In fact, those that make such claims generally do not have any intention or ability to back it up. Second, there currently is no way to determine whether meat, eggs or other products come from herds that were fed biotech grains or traditional varieties. Third, as new value-added crops become more widely available, the poultry industry will be anxious to take advantage of the opportunities these present for improved flock health and nutrition. Then, it will be difficult or at least inconvenient to change a position that was taken earlier. However, as I hope to have shown in this article the main reason that the poultry industry should remain supportive of biotechnology is that the majority of consumers are actually willing to accept biotechnology—particularly in the USA, Asia, South America and other developing areas. In fact, it is only in Europe where we find any significant level of consumer concerns. Even



there the opposition and the calls for non-biotech feed are being driven by the opponents of modern agriculture—particularly Greenpeace. This opposition will likely fade as consumers and leaders realize how much this interest group campaign will cost them in higher food prices and missed opportunities.

Biotechnology is at a crossroads in terms of public acceptance. Many U.S. consumers have not yet formed a solid opinion on this complex issue. International developments over the next year will certainly have a major influence on the long-term viability of biotechnology. The future of the world food supply depends upon how well scientists, government and industry are able to communicate with consumers about the benefits and safety of the technology.

Several major initiatives are under way to strengthen the regulatory process and communicate more effectively with consumers. Both the USDA and FDA have opened their regulatory systems to outside review and public comment. The biotechnology industry, university scientists and others are also conducting educational programs. These should further strengthen consumer confidence. This partnership among the public and private sectors will support these emerging technologies that will prove vital to the U.S.

economy and the developing world in the new millennium. Even Europe will soon find the real benefits of biotechnology compelling.

Research shows that consumers will accept biotech foods if they see a benefit to themselves or society, and if the price is right. Their responses to foods developed through biotechnology are basically the same as for any other food—taste, nutrition, price, safety and convenience are the major factors that influence our decisions about which foods to eat. How seeds and food ingredients are developed will only be relevant for a relatively small group of concerned, consumers. The poultry industry needs to focus on what it does best—namely producing and distributing value-added foods that consumers and customers really want.

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