Pew Initiative ON Food AND Biotechnology

Overview of Findings
2004 Focus Groups & Poll

In September 2004 the Pew Initiative on Food and Biotechnology conducted its third comprehensive survey of U.S. consumer sentiment about the application of genetic engineering to agriculture. Similar comprehensive surveys were previously conducted by the Initiative in January 2001 and August 2003. The first survey sought to track consumer awareness of genetically modified (GM) crops, whereas the second survey continued that tracking effort and probed related issues such as regulation of GM foods and preferred applications.

This year the Pew Initiative built on its body of knowledge about consumer sentiment by conducting focus groups as well as fielding a survey. Four focus groups were conducted in Philadelphia and Des Moines on August 25th and 26th. Observations from those groups were then used to develop a survey that both tracked the issues addressed in prior surveys by the Pew Initiative and probed some of the sentiments detected in the focus groups. The resulting survey was then administered to 1000 American consumers who were interviewed by telephone September 22-26, 2004. The margin of error for the survey is +/- 3.1% at the 95% level of confidence. The margin of error is higher for subgroups.

The combined findings from the August 2004 focus groups and the September 2004 survey are summarized below and provide a robust picture of current U.S. consumer attitudes toward GM foods and genetic engineering, why those beliefs are held, and trends in those attitudes over the last three years. In addition to this summary, the Pew Initiative is making available a transcript of the focus groups and the survey results, prepared by the firms that jointly prepared and conducted them, the Melman Group and Public Opinion Strategies.

Summary

Americans remain relatively uninformed about genetically modified foods and the application of genetic engineering technology to agriculture, and their level of knowledge has not increased over the past three years.

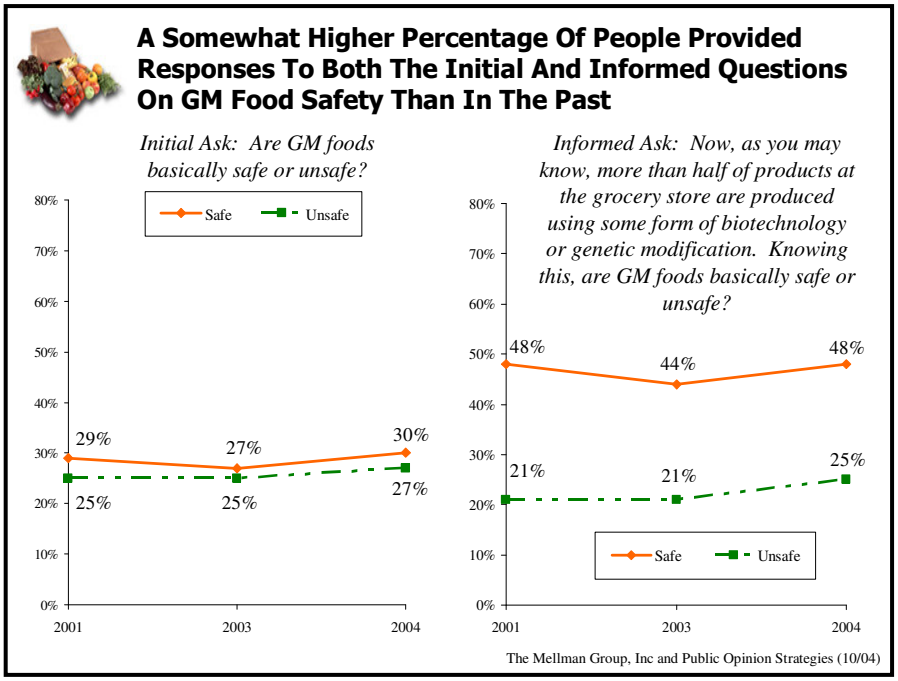
What knowledge consumers do have appears to be driven mostly by the degree to which the media concentrates on the issue. For instance, in January 2001, a few months after the media had finished covering the October 2000 discovery of GM corn in the food supply ("the StarLink corn episode"), 44% of consumers had heard a great deal or some about genetically modified (GM) foods. Over the last two years, without such focus, the level of knowledge has diminished, with 34% claiming to have heard a great deal or some about genetically modified foods in 2003 and only 32% responding similarly this year. That represents a 2-point decline from last year and a 12-point decline since 2001.

It is important to note, however, that opinions informed during incidents such as the StarLink event, are lasting for some consumers. For instance, a man who participated in a focus group in Pennsylvania in 2004 and claimed not to know much about GM foods, noted "*I've been following the*

news. I can remember [there was] some stink storm when some genetically altered corn got loose in Minnesota into the general population. They're not approved across the board right now because [regulators] don't necessarily know how safe they are." Clearly the quantity and quality of media coverage in 2000 made enough of an impression, that four years later, some consumers still related GM crops to safety concerns.

Nevertheless, both support for and opposition to "introducing genetically modified foods into the US food supply" have remained essentially the same over the last year, with a 1-point decline in opposition (from 48% to 47%) and a 2-point increase in support (from 25% to 27%). This represents a softening in the opposition to genetically modified foods since 2001 from 58% in 2001 to 47% today, an 11-point decrease.

American consumers' opinions about the safety of GM foods have changed little over three years: 30% of consumers say that GM foods are "basically safe" (up from 29% in 2001 and 27% in 2003), while 27% say that they are "basically unsafe" (up from 25% in both 2001 and 2003). And, when informed that more than half of products in grocery stores are produced using some form of biotechnology or genetic modification, belief that GM foods are safe increases to 48%, while belief that those foods are unsafe declines to 25%.



Overall, these data indicate that Americans have heard little about genetically modified foods, and as such, have yet to roundly accept or intensely oppose them.

Though They Do Not Know Much About The Regulation Of Genetically Modified Foods, Consumers Support a Strong Regulatory System

It is clear that Americans still know very little about the regulatory structure around genetically modified foods. In 2004, 12% of Americans said they knew "a great deal" or "something" about the federal regulation of GM foods and 83% said they knew "not too much" or "nothing at all." These numbers are largely unchanged from last year (13% "great deal/some," 84% "not too much/nothing").

Of those who had heard about regulations for GM foods, 8% said there was "too much" regulation of GM foods, 19% say there was the right amount of regulation, and a 40% plurality said there is "too little" regulation of GM foods. That represents a 5-point increase in the percentage of Americans saying there was "too little" regulation since 2003 (from 35% to 40%) and a 2-point decrease in the percentage saying there was "too much" (from 10% to 8%).

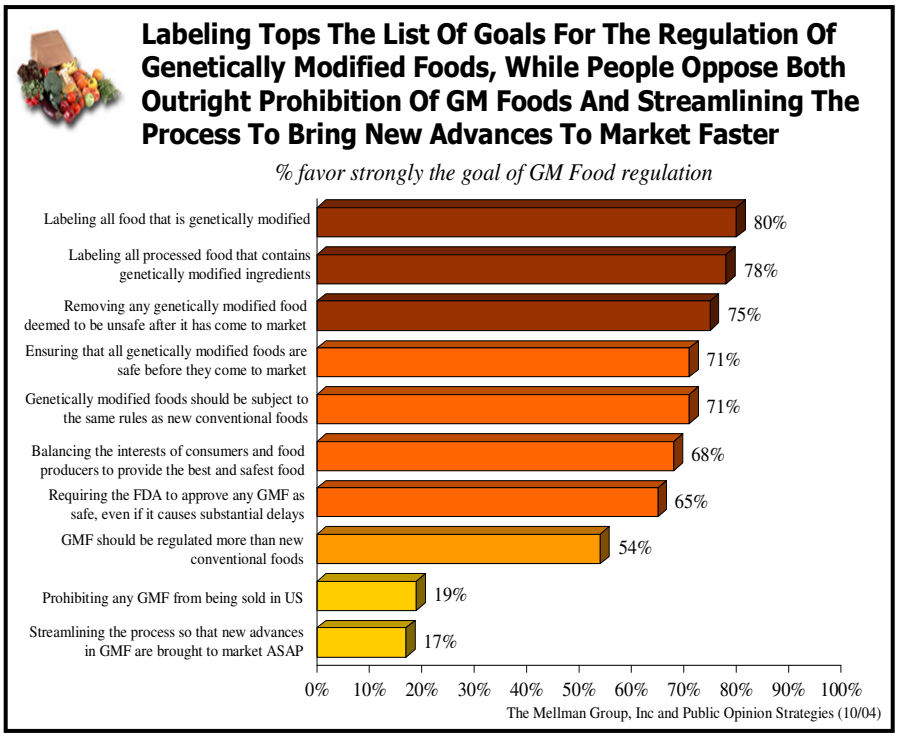
Consumers favored the present policy of removing "unsafe" GM foods from the market (85%), but favored equally strongly that regulators should ensure that GM foods are safe before they come to market (85%). Indeed, a large majority of consumers (81%) believed that FDA should approve the safety of GM foods before they come to market, even if there would be "substantial delays" in bringing the product to market, and a plurality opposed streamlining the regulatory process to bring advances in GM foods to market as quickly as possible (50%).

This expectation of regulatory oversight was obvious in the focus groups, where participants often tied regulation with trust in a product. As one man in Iowa pointed out *"...Regulating to me is critical. It brings credibility to the product that I buy*."

Confusion and concern about the existing regulatory requirements for GM foods are also evidenced in the poll and in the focus groups. Survey respondents and focus group participants were informed that FDA does not presently approve the safety of new GM foods before they go to market, although it has the authority to remove unsafe foods from the market in the case of a safety problem. While survey respondents strongly supported pre-market safety approval, when sub-groups are polled 82% of consumers in one sub-group said that GM foods should be subject to the same rules as new conventional foods but 72% of consumers in another sub-group said that GM foods should be regulated more stringently than new conventional foods. Unease and concern about the regulatory system were also expressed in the focus groups. One woman from Pennsylvania asked "*...how is it possible that they are putting food out there and not testing it? [If] they don't approve it, okay, so they don't approve it. But they are still allowed to sell it, which doesn't seem right*." A man from Philadelphia indicated that the current system makes him doubt safety reassurances previously provided by regulators, when he said "*Basically, if they're not approving it, or really monitoring it, how can they possibly sit here and say there have been no ill effects?*"

At the same time, consumers do not favor an outright ban on GM foods. When a woman in an Iowa focus group said "*I'm too open minded [to ban GM foods]. I'm not willing to shut something out completely*", she articulated a sentiment held by a majority of Americans. In 2004, 55% of Americans indicated they oppose the goal of "prohibiting any genetically modified food from being sold in the United States"; 19% supported that goal.

On labeling issues, the survey and focus groups confirmed prior findings that consumers by large majorities support the labeling of GM food (92%) and GM ingredients in processed foods (91%).

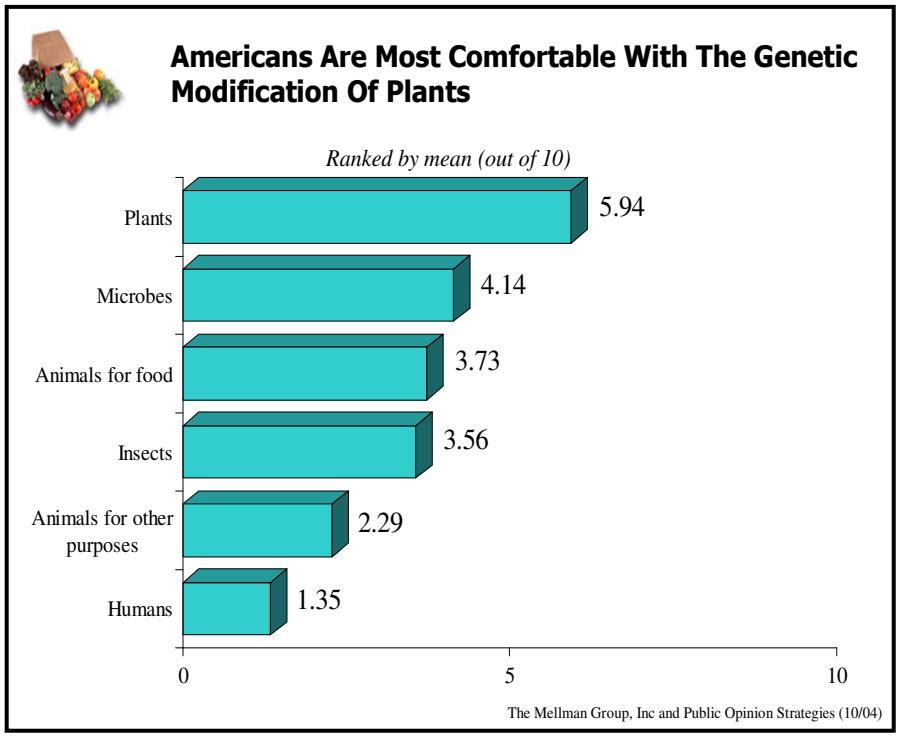


These results indicated that consumers are not looking to ban GM foods and have faith in the regulatory system. However, by large majorities they support a rigorous regulatory system that requires pre-market FDA approval of GM foods and labeling.

Americans Remain Most Comfortable With The Genetic Modification Of Plants

Americans remain far more comfortable with genetic modifications to plants than animals.

Asked to rate how "comfortable" they are with genetic modifications of different types of life forms (on a 0 to 10 scale), consumers say they are most comfortable with modifications of plants (5.94). As was found last year, consumers' comfort level appears to be inversely related to where the products are in the food chain: after plants, consumers are most comfortable with genetic modifications of microbes (4.14), animals used for food (3.73), insects (3.56), followed by animals used for other purposes (2.29). Once again, consumers are least comfortable with genetic modifications of humans (1.35).



Asked specifically about scientific research into the genetic modification of animals, consumers continue to stand in opposition: 57% say they oppose this type of research (46% strongly) and 32% favor it. These numbers are largely unchanged from last year (32% favor, 58% oppose).

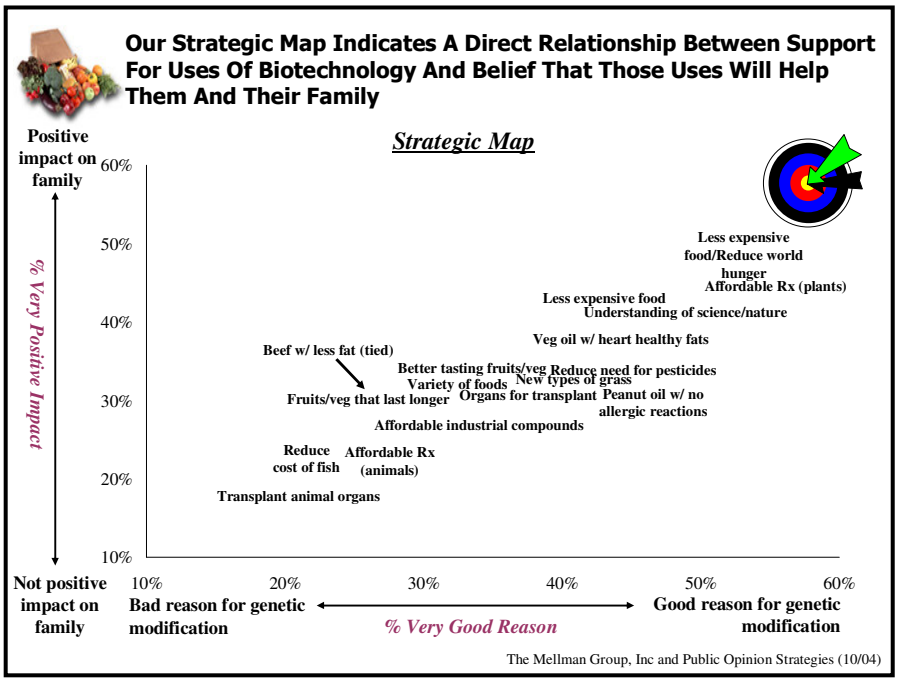
When the reason for this opposition is probed, many point to moral, ethical and religious beliefs. One woman who participated in the Iowa focus groups described genetic engineering as "*...messing with things...*" and reflected a common desire for limitations to be placed on the technology when she added "*....Human beings altering natural things that I believe God created. I don't know where to draw the line. If it can't produce—if it can't reproduce it's own kind – then to me that's a red flag and maybe I don't want to ingest or use that*."

Importantly, opposition to genetic modifications of animals did *not* cleave strongly across levels of church attendance. Although fifty-eight percent (58%) of those who attend religious services once a week or more oppose this type of research (31% favor), a majority of those who say they never attend church also oppose genetic modifications of animals (53%). While the tie between religious beliefs and technology opposition was not explored in depth in this survey, it is clear that the values underlying opposition to genetic modification of animals cross the religious-secular divide.

Consumers Are Most Supportive Of Those Uses Of Biotechnology That They Feel Will Directly Help Them And Their Families

In order to determine consumers' overall comfort level with biotechnology, respondents were presented with a number of ways genetic engineering could be applied to agriculture then asked to assess the uses in two categories – whether or not the use in question was a good reason to pursue biotechnology and the overall impact that particular use would have on the consumers and their families.

A relationship was found between support for uses of biotechnology and the belief that those uses will help them and their families. For instance, the top reasons cited for using biotechnology were to produce more affordable pharmaceutical drugs by using plants (54% very good reason) and to produce less expensive food to reduce hunger around the world (52% very good reason). Those same uses were viewed as having the most positive impact on consumers and their families. A similar relationship existed for most of the items tested.



Conversations in the focus groups had a similar tone. When group participants were given a list of genetically modified products (both real and hypothetical) and asked to relay their thought about those products, many participants articulated a point of view that suggested the value placed on the product was based on the degree to which the product enhanced personal or social needs. A woman in Philadelphia said "*I'm not really uncomfortable with any of these. .....I think anything that can be done to make things healthier and easier for humans is great. So, [nothing on the list] scares me*." And a woman in Iowa expressed specific support for crops that produce pharmaceutical proteins because "*...I think we have such a problem with people not being able to afford their medications. I live in a retirement community and a lot of those people literally choose between what kind of foods they are going to eat this week because this prescription needs to be filled up*."

This correlation between GM product and personal benefit raises a number of important questions. Is support for uses of genetic modifications driven solely by personal concerns? There is evidence that there are underlying ethical constraints at work. For example, consumers are both more likely to support creating more affordable drugs through genetic modification of plants—and to believe that those will help them and their families – then they are to support the same goal achieved through genetic modification of animals. This seems to be driven by basic concerns about genetic modification of animals.

Nonetheless, the chart above indicates that consumers' *perception* of the benefits that biotechnology will provide them and their families is an important driver of support.

It is also worth noting that in spite of some of the underlying concerns Americans had about biotechnology, one of the key discussions of biotech uses appealed to Americans' inherent scientific curiosity. Indeed, pursuing biotechnology to expand our understanding of science and nature closely followed the top uses cited above and outstripped many practical uses for biotechnology, like reducing the need for pesticides and developing vegetable oil with heart healthy facts, in the survey. This suggests that although American opinion about the application of genetic engineering to agriculture is guided by practical concerns, optimism about nature and scientific discovery also play a role.