

# Exploring attitudes to GM food Executive Summary

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# Executive summary

This is a summary of the findings of a study commissioned by the Food Standards Agency (FSA) aimed at understanding public attitudes towards genetically modified (GM) food. The government's overall policy on GM food, set out in 2004, stated that there is no scientific case for a blanket ban on the cultivation of GM crops in the UK, but that proposed uses of GM need to be assessed on a case by case basis<sup>1</sup>. Although GM food is not currently widely available in the UK, in recent years there has been renewed policy interest in GM food<sup>2</sup> and the FSA has recently commissioned several strands of work aimed at understanding current public opinion on the subject. This has included an evidence review on public opinion towards new food technologies<sup>3</sup> and a module of questions focusing on attitudes to food technology in the British Social Attitudes Survey (BSA).

## Research aims and methodology

This qualitative study was designed to build on the findings of previous FSA work and specifically aimed to:

- explore why people hold particular views to GM food;
- better understand how people's attitudes to GM food are formed;
- explore how people weigh up the risks and benefits associated with GM food;
- better understand what causes people to be indifferent to GM food; and,
- explore the circumstances in which people change their views.

These objectives were met using a three stage design. First, 30 **in-depth interviews** were held with BSA survey respondents in two geographical areas to explore what shapes attitudes to GM food. Second, two **deliberative workshops** were held with depth interview participants to further understand what shapes attitudes and the impact of information about GM food. Finally six **follow-up telephone interviews** explored participants' experience of the research process. Purposive sampling ensured diversity in attitudes to GM food as expressed in the BSA survey, and in relation to relevant socio-demographic factors.

## Findings

### Understanding of GM food

Participants fell into two broad categories in terms of their understanding of GM food. Those that were **confident about their level of understanding** described the process of genetic modification in terms of altering DNA of plants or crops for the purpose of society, business and science. They expressed awareness of popular/media images of GM food and recalled strong images of environmental protesters destroying GM crops, while feeling critical towards them. Those that were **less confident about their level of understanding** described genetic modification as a process of altering or modifying food in various ways for the benefit of the consumer. Images of GM food were striking and participants used shocking language such as '*Frankenstein*' food. Associations with the GM process were of unnaturalness, '*playing with nature*' and experimentation. There was convergence between these two positions in terms of understandings of the extent to which GM

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<sup>1</sup> Parliamentary statement made to the House of Commons on GM crops by the Secretary of State for Environment, Food and Rural Affairs, HC Deb, 9 March 2004, cols 1381-4

<sup>2</sup> Cabinet Office Strategy Unit (2008) *Food Matters: Towards a Strategy for the 21<sup>st</sup> Century*, Cabinet Office, London; Defra (2009) *Food Matters: One year on*, available at: <http://www.defra.gov.uk/foodfarm/food/pdf/food-matters-oneyearon090806.pdf>

<sup>3</sup> Brook Lyndhurst (2009), *An evidence review of public attitudes to emerging food technologies*, London. Food Standards Agency, available at [www.food.gov.uk/multimedia/pdfs/emergingfoodtech.pdf](http://www.food.gov.uk/multimedia/pdfs/emergingfoodtech.pdf)

food is being produced and available to buy; a common perspective was that GM was widely available but there was little knowledge about labelling requirements for GM food.

### **Attitudes to GM food**

A wide range of views towards GM food were expressed in the depth interviews and these could be broadly grouped into four sets of attitudes, each including a range of more specific perspectives.

**Positive attitudes** were articulated in terms of the perceived benefits of GM food for society, the perception that the benefits of GM food outweigh the potential risks and trust in the motivations of producers and regulators. A key driver of **negative attitudes** was concern about perceived health and environmental risks and unintended consequences relating to GM food and scepticism about the motivations of producers and regulators of GM food. Participants occupying the 'middle ground' articulated their position on GM food as being neither overall positive nor overall negative. Within this group were two sets of attitudes. Those with **undecided attitudes** presented themselves as unable to form a clear judgement about whether they were positive or negative towards GM food either because of a lack of personal knowledge on the subject, or because of a lack of evidence about GM food currently available. The second set of attitudes among people holding the middle ground could be defined as **not holding a view on GM food**. Participants holding this position did so either because they perceived that GM food was a 'private' issue for individual consumers rather than a public issue, or because GM food was simply a low priority issue for that individual.

### **Factors that shape attitudes: worldviews and personal circumstances**

Participants' worldviews and personal circumstances interacted to inform and shape their attitudes towards GM food. In particular attitudes towards GM food were driven by two overarching sets of broader viewpoints:

**Broad views towards food and food production** informed negative, positive and neutral attitudes towards GM food. For example, participants articulated that GM food was considered potentially unsafe and harmful or expressed concerns about the use of GM animal feed. This was underpinned by broader attitudes towards food which centred on the quality / healthiness of food, emphasised direct experiences of food production where food was locally sourced, tended to dichotomise food in to 'good' and 'bad' types and saw commercial production processes as having a negative impact on health. For these participants food scares had resulted in lack of trust in the food industry. These viewpoints were commonly expressed by people who had responsibility for providing food for children.

In contrast, middle ground or more positive attitudes towards GM food were related to the perception that the decision to purchase GM food would be driven by pragmatic considerations and the belief that GM food will only be available to eat if it is safe. These attitudes could clearly be understood in the context of broader approaches to food. For these participants food choices were influenced by pragmatic concerns such as cost, time available to buy and prepare food and food shopping facilities. They tended to be less preoccupied by the relationship between food and health and expressed higher degrees of trust in food safety and regulatory systems.

Different **attitudes towards science and technology** were clearly associated with positive or negative attitudes towards GM food. Participants who expressed positive attitudes towards GM food tended to view the process of genetic modification as ordinary and non-threatening and they expressed trust that structures to ensure the appropriate testing and regulation of GM food were in place. They argued against the claim that GM food is unnatural, viewing it as an extension of evolving scientific and agricultural practices. The potential risks of GM food were recognised but it was claimed that these were outweighed by the benefits. These views were **underpinned by a positive view of science**, in which science was perceived to improve the quality of life, and contribute to the progressive advancement and ongoing evolution of human society. From this

perspective risk was an inevitable part of scientific progress and regulators were trusted to ensure that risks were carefully assessed.

In contrast, negative attitudes towards GM food were articulated in terms of lack of confidence in the long-term safety of GM food and concerns about both the quality of GM products and the ethics of the process of genetic modification. These views were clearly underpinned by **sceptical or cautious views of science** more generally. From this perspective, the risks involved in scientific activity were less acceptable and the motives and effectiveness of regulation of new food technologies were questioned. Another facet of this viewpoint was that scientific progress was perceived to be happening too fast without sufficient attention to the ethical consequences that it raises. Finally there was a perception that food and health guidelines were inconsistent, which led to a broader lack of trust in scientists and the regulatory authorities.

### **Factors that shape attitudes: responses to information**

During the workshops, participants were presented with different types and sources of information about GM food. This further revealed what shaped their views, including how they weighed up the associated risks and benefits, and provided evidence on how exposure to information impacted on attitudes.

Participants were given a **presentation by a representative from the Novel Foods division of the FSA** which provided an overview of issues relating to GM food, including the role of the FSA. The questions participants raised after the presentation revealed key concerns about the availability of GM food in the UK, how regulation works and the possible consequences of GM food in relation to food prices, the environment and health. **Responses to this information were mediated by participants' pre-existing views.** Previous positive attitudes and trust in authorities translated in to trust in the FSA expert and the presentation content. Conversely, previously expressed negative or sceptical attitudes translated into scepticism about the objectivity of the FSA expert. The presentation content impacted most on the views of those who were undecided, whose awareness of the potential benefits of GM food increased resulting in more positive views towards GM food.

Participants were also provided with **examples of current uses of GM in food production** and asked to rate the acceptability of these. In forming their judgements, people drew on similar **risks and benefits** as had been discussed previously in the interviews. These included **concerns about environmental and health risks, the potential benefits for developing countries** and whether the **motivations of those developing these applications** would limit the value for developing countries. Responses to this information were again mediated by existing viewpoints. People with a positive attitude towards GM food, who saw GM food as an extension of existing scientific practices, were unfazed by this information. Those who were cynical/ less trusting about the motivations of food producers felt that this information did not address their concerns while those that were trusting were reassured that these foods wouldn't be available unless they were safe. Developing greater awareness of the potential social benefits of GM food was confusing for participants who had previously thought about the issue in terms of the impact on themselves and their family.

Participants were asked to weigh up **different arguments about GM food** from the public domain. This revealed that **health considerations** and **consequences for tackling food shortages** were key factors in the forming of judgements on GM food. The **source of arguments was as important as the content in weighing up arguments**; campaigning environmental groups were perceived to have vested political interests while the food industry was perceived to have vested economic interests. Individual politicians were not trusted but there were mixed views on the

reliability of government sources. There was no consensus on who would constitute a neutral source of information.

### Overall impact on attitudes of taking part in the research

There were two main ways in which attitudes developed during the course of the research. The first involved a **transition towards more positive attitudes**. Among participants who expressed positive attitudes at the outset, there was a perception that the information they had received made them more convinced of their existing positive view. Similarly, those who were more negative/ undecided in the interviews reported that the information led to increased awareness of the benefits of GM food and dispelled their sense of GM as an unknown entity. The second way that attitudes developed involved **no switch in overall attitudes** but a variety of more subtle changes in perspectives on GM food. People who were negative/ undecided in the interviews felt they had still not received enough information to form a judgement; in particular more information was needed about the long-term health risks. Finally, participants expressing positive viewpoints said that, while they remained positive, their view had become more nuanced and incorporated a broader understanding of the potential advantages and disadvantages associated with GM food. Overall, perspectives on GM food from across the attitudinal spectrum became more qualified and nuanced as people had become aware of the complexity of the debates on the subject.

### Methodological implications

There are a number of implications for the design of future research on attitudes to GM food or similar topics. **Engaging people with low levels of interest/ ambivalent views** in research requires clear communication about the aims of the research during recruitment, and practical strategies such as the use of incentives and convenient research times/locations. **Encouraging participation from those with sceptical views** requires transparency about the research purpose, the value of their views and evidence of the robustness of the research. Research design on complex scientific issues needs to ensure **sufficient homogeneity in terms of educational background** among participants but also **diversity in attitudes** in order to generate discussion. Finally deliberative research on complex issues needs to grapple with the tension between **providing balanced information and ensuring that the practical and intellectual demands on research participants are reasonable**. How future researchers respond to these tensions will depend on the specific objectives and context of the research.

### Policy implications

The study found some public **trust in official sources of information and communication**, including the FSA but also a wish to know more about the interests of different sources in the GM food debate. In terms of **information content**, people wanted to know more about the **extent to which GM food is available**; this reflected perceptions that information provided at the workshop about the prevalence of GM food was particularly surprising and useful. In addition further information was requested about the **potential long-term societal and personal impacts**, and the **potential consequences for animal welfare**. **Clear and accessible** information was wanted from **a range of different places**, including in supermarkets. There was a lack of knowledge about how labelling and regulation currently works and a view that the current system is confusing. There was widespread **support for labelling of all GM food products**, including where GM is used as a processing aid or in animal feed. The principles of transparency and consumer choice were clearly a priority for people holding a range of attitudes towards GM foods and this shaped their views on regulation and labelling