

Chapter 2

INTRODUCTION

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Consumers in several EU countries are able at the present time to purchase GM-food products. This study was accordingly designed to compare actual consumer behaviour with purchasing intentions expressed in response to opinion polls and questionnaires.

There is one very important point to note at the outset: from the average consumer's perspective, the only way of knowing whether or not a product contains GM-ingredients is to look at the label. Consumers cannot be expected to know how various foodstuffs are compounded or of the intricacies of EU and national regulations. Thus, we have focused our attention on products which carry GM- (or GM-free) labels without concern about whether a product such as GM-cooking oil contains any detectable trace of a GMO-origin. As far as the consumer is concerned, the label says it all.

Nor have we paid attention to products (such as vegetarian cheese) produced *with the aid of* materials (chymosin in that case) from a GM-source but *do not contain* GM-ingredients. EU regulations distinguish between these cases, obliging the latter to carry a label but not the former. The average consumer cannot be expected to know about chymosin from genetically modified microorganisms used for the preparation of some cheeses and we have therefore ignored such materials.

The prime strategic objectives of the study were to:

- determine the real attitudes of European consumers towards GM-foods by observing their actual purchases when they were given the opportunity;
- note GM-products offered for sale and how customers are informed by labelling, price, supplementary information, position and prominence on the shelves;
- supplement the findings with specific polls and focus groups;
- provide reliable evidence of genuine consumer GM-food choices to food chain stakeholders to help their future planning.

The exercise of consumer choice with respect to GM-foods has implications both along the food chain and for restaurateurs, schools, hospitals, residential institutions, research activities, nutritional advisers, food journalists and policy-makers.

Published opinion polls have hitherto offered a variable picture of European consumer attitudes. Some have shown many consumers to be against GMOs. Other evidence suggested little real interest: when offered products labelled "GM" at a favourable price, consumers tended to buy. One question therefore was whether opinion polls actually provide reliable indications of how consumers would behave when presented with real rather than theoretical choices.

Under EU regulations, food products containing more than 0.9% GM-content in any

ingredient must be labelled accordingly. As the project was being developed, increasing quantities and varieties of GM-products were expected to appear in EU food stores in the ensuing months and years; indeed, some were already on the shelves. The objective was thus to determine what consumers actually do when buying food as distinct from what they say they will do as reported in polls.

The study involved:

1. tracking the introduction and availability of labelled GM-foods in ten Member States;
2. viewing in those countries the actual consumer purchases of GM-foods against a background of published opinion polls of expressed intentions, local public discussions, media reports, and governmental policies and statements;
3. exploring consumer actions and motivations by bar code analysis of purchases accompanied by questionnaires; questions were put to individual shoppers in Germany;
4. asking how Europeans, as represented by Poles and residents of the UK, react to the widespread presence of GM-containing foods when living in or visiting North America;
5. drawing appropriate conclusions about the predictive value of various methods of assessing public opinion and intentions in the light of actual consumer preferences as indicated by purchases.

It was not part of this proposal to conduct general opinion polls on attitudes to GM foods: polling is a highly specialised activity already conducted by experienced pollsters. Nor would it have been necessary to do so; polls on public attitudes to GM-crops and -foods are already carried out fairly regularly, with the results usually available in the public domain. Our specific polls did nevertheless include some more general questions.

Background

The European GMO debate

In the closing years of the 20th century, Europe witnessed a series of disturbing food-related crises and issues. They encompassed cases of deliberate and illicit adulteration, contamination with noxious chemicals from industrial effluents and the involvement of animal diseases, including bacterial infections and bovine spongiform encephalopathy (BSE). In some countries this generated growing scepticism about information, particularly assurances about food safety, deriving from industry as well as from governmental and other official sources. These food problems were the precursors of the great GMO-food debate which remains partly unresolved to this day.

The debate has had a major influence on the European food industry (1, 2). Food legislation has to take into account the growing demand for transparency and traceability, as witness the regulations on GM-food and -feed labelling and traceability (EC1829/2003 and EC1830/2003) which came into force on April 18th, 2004. In autumn 2004, the EC agreed specific operational interpretations of these regulations, with widespread labelling of GMO-containing or derived products starting in 2005.

Applications for the EU approval of new GM-foods became stalled, with the last approvals of novel GM-food products in April 1998. Following the new regulations, the first clear sign of

the moratorium breaking came on May 19th, 2004 with the approval for human consumption of GM-maize (3). The possibility then existed that GM-food products, labelled according to the new regulations, would begin to appear in the food shops in the coming months and years. Some sources expected rapidly growing numbers of GM-food products to be on sale in European countries following the establishment of the labelling regime; they have indeed appeared but perhaps more gradually than initially anticipated. The European Food Safety Authority (EFSA) had already noted that proposal to ban EU-approved GM foods in Austria and Greece as requested by those countries had no scientifically justified basis. The EFSA ruling enabled the Commission legally to challenge these restrictions (4, 5).

Public attitudes towards GM food: theory and practice

It is, of course, impossible to predict how in real life consumers will respond to food labelled as containing GM-ingredients, hence the dilemma for retailers, manufacturers and farmers. Some retailers claim no philosophical objection to offering GM-products but are clearly worried about the effect on their sales or protests by activists, especially if they become the first locally to do so. However, providing products for a minority of consumers with incompatible special requirements presents few problems for retailers: they already do so for patrons with religious requirements or wishing to avoid animal products, while offering other products in the same stores for the bulk of their customers. If they so decided, it could be done in the same way for GM-products.

Formal public opinion polls are carried out at intervals both by the EU (as part of the Eurobarometer series), and by a range of commercial polling organisations and public service bodies such as government agencies and consumer associations.

The Eurobarometer polls and other reports have shown widespread scepticism to genetically modified food (6-12); the arguments and the underlying premises of popular viewpoints have been investigated in qualitative studies using in-depth interviews and focus groups.

Such studies have shown that attitudes to GM-food (and its labelling) are linked to moral, existential and epistemological issues about trust and people's sense of agency. Lay scepticism about GM-foods may be influenced by a lack of trust in the institutions and actors responsible for the new technology (9, 11, 12), or by a lack of a sense of agency (7, 12, 13). In addition, GM-food is sometimes perceived as "unnatural", challenging traditional perceptions of nature and of humanity's place in nature, which may bring about moral objections (12, 13).

Over recent there has been a gradual decline in antipathy to GM-foods and -crops, more so in some countries than in others. Thus, a recent UK study has shown a decline in concerns about GM-foods from 25% in 2006 to 20% in 2007 (14). Swedish consumer opinion polls point to a relatively negative public opinion to GM-foods (15). For 2005, the number of opponents in Sweden is markedly higher than the total percentage of opponents in Europe generally, which amounts to 58%. There are, however, indications that the Swedish negative opinion is not absolute (16). It is plausible that under certain circumstances, e.g. if environmental benefits could be proved, there would be some willingness among Swedish consumers to buy GM-food stuffs.

Although there are national variations, the European public on average tend to be more

sceptical towards GM-food and -crops than to biotechnology for medicine (8). In a Swedish focus group study, for instance, participants explained that they could perceive immediate, personal advantages and consumer benefits from GM-medicine but not from GM-food (13).

Nevertheless, while a high proportion (often a majority) of European citizens have said in one form or another that they opposed GM foodstuffs, sizable minorities did not (8, 17-19). At the same time, most people stated clearly that consumers should have freedom of choice about whether or not to buy GM foods (17).

It is important to bear in mind that questionnaires, interviews and focus group discussions on GM-food have dealt mainly with hypothetical products and scenarios, since clearly labelled GM-products have rarely and mostly only comparatively recently been available on the European market. Together with extensive anecdotal observations, the polls often generate uncertain and conflicting conclusions. Consumers generally may not be so antagonistic as some retailers fear (20-22) and not all food suppliers focussing on non-GM foodstuffs are necessarily successful. For example, sales of specifically non-GM pork by a Danish meat producing group fell far short of expectation (23). But, so far, few food manufacturers and retailers have withstood pressures (mainly from non-governmental organisations [NGOs]) to withdraw GM-labelled products from their shelves (24, 25). Many, perhaps most, large retailers have somewhere on their websites a statement about their policies with respect to GM-products although those pages are not always easy to find; where they have been identified we have referred to them in the chapters focussing on individual countries.

Lay persons' expressed attitudes to GM food products may well differ from their actual choices when such products are available in the stores. Moreover, whatever form consumer reaction takes to the presence of GM foods in the stores, public discussion is conducted in the context of government decisions, media news items, discussions, articles and presentations, as well as a range of activities by scientific, civic and industrial bodies, and by NGOs. No matter its ultimate origin, most members of the public acquire their information on GMO topics from the media; what the newspapers and magazines print – and the broadcasters say – is obviously important.

A matter of price?

In the spring of 2004, customers in a German city were offered “pretend” GM bread in a bakery and French fries at a lunch counter. The products, labelled as containing GM-ingredients (although they did not), were offered for sale at reduced prices alongside their “non-GM” equivalents (which were, of course, identical). Four times more of the cheaper “GM”-loaves and over 20 times more of the “GM”-fries were sold compared with the “conventional” variety (22). An experiment with asparagus revealed similar results. In the UK, an experiment showed that a total of 28% of the customers are willing to buy GM-breakfast cereals at equal or at lower prices compared to conventional counterparts (26). Is price thus a (or the) determining factor?

Consumers are curious

Various interesting examples of consumer reactions have been observed. In Sweden, a beer is brewed containing GM-maize grown in Germany (20). It was for a time sold in one of the largest Swedish retailer chains but was withdrawn due to consumer protests. It is now offered in some restaurants and in southern Sweden through the Swedish state-owned liquor monopoly *Systembolaget* (21). This Kenth beer was available for tasting at a stand at the Food and Drink Expo 2004 exhibition in Birmingham in March 2004; passers-by and visitors to the booth were invited to sample it. Of about 2,000 people so invited, only 12 refused on the grounds that it contained a GM-ingredient. In that same exhibition, visitors were asked, as they had been in 2002, to predict when they expected to see GM products in the stores. The period has become shorter, with the overwhelming proportion of consumers expecting GM foods to become part of normal existence in the next 2-5 years. That may have turned out to be somewhat optimistic

Most supermarkets in Member States have so far been very cautious about committing themselves to putting GMO-derived products on the shelves. Nonetheless, at the start of this study there was a widespread expectation that, over the coming months and years, and more readily, no doubt, in some countries and places than in others, such products would indeed appear. Even the German Federal Agriculture and Consumer Affairs Minister Renate Künast, a member of the Green Party and well-known for her antagonism to agricultural biotechnology, said in January 2004: “I reckon that, at the latest, genetically modified corn will appear on European supermarket shelves in the autumn” (27).

A unique opportunity seemed about to present itself to explore some of these consumer uncertainties as the new products appeared on the shelves. With the coming into force of the EU labelling regulations and the necessary refinements for their proper use throughout the EU, consumers have all the information they might reasonably require in order to decide whether or not they wish to consume products containing or made from GMOs.

Investigating consumer GM-food behaviour – a different approach

An unrepeatable opportunity apparently existed of observing what shoppers actually buy when faced with this new choice, rather than what they might have said they would purchase. Such a possible discrepancy between the public opinion polls about GM-foods and the actual behaviour of customers when faced with real choice had not previously been explored.

The proposers of this project thus perceived a unique prospect for a fact-based survey on the sales of GM-labelled foodstuffs as they became available for the first time in ten Member States. Rather than concentrating on what consumers said they might do with respect to buying GM-foods, the study has explored as far as possible what in fact they did do in those countries where such foods were on sale. In Member States with none on the shelves, attention turned to consumer responses to “GM-free” labels. Thus, the presence of labelled products on the shelves, sales data, the recorded purchasing behaviour of customers, published material combined with our own surveys of opinion using a poll and focus groups together offer a view of the real attitudes of consumers in a number of countries towards foods containing ingredients derived from GM-sources. This information will be of wide interest to all those involved in the food chain: consumers and their associations, retailers, restaurateurs, food manufacturers and farmers, as well as lawyers, politicians and journalists. They will provide the European Commission and the EFSA with feedback about

the implementation and practicability of GMO labelling, will painting a picture of real consumer sentiment on the basis of behaviour and in the climate of ongoing public and media discussions.

The findings are an important indicator to the European food industry, crop breeders, researchers, journalists, consumer organisations and policy makers about the way GMO-products are perceived and dealt with. They may help to inform the wisdom of the strategy pursued by some food companies of avoiding GM-foodstuffs – and hence labelling – or they might stimulate re-consideration and allow the European food industry to realign and become more competitive in the future. Either way, a signal will go back from fork to farm, with obvious consequences for European agriculture.

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