

F&Y2 Wave 8: Chapter 7 Changes to eating habits, meat alternatives and genetic technologies

Introduction

The Department for Environment, Food and Rural Affairs (Defra) has a broad remit and plays a major role in increasing the sustainability, productivity and resilience of the agriculture, fishing, food and drink sectors, enhancing biosecurity at the border and raising animal welfare standards. In addition, Defra oversees the regulation of genetic technologies such as [genetically modified organisms](#) (GMO), [gene edited](#) (GE) organisms and [precision bred](#) foods.

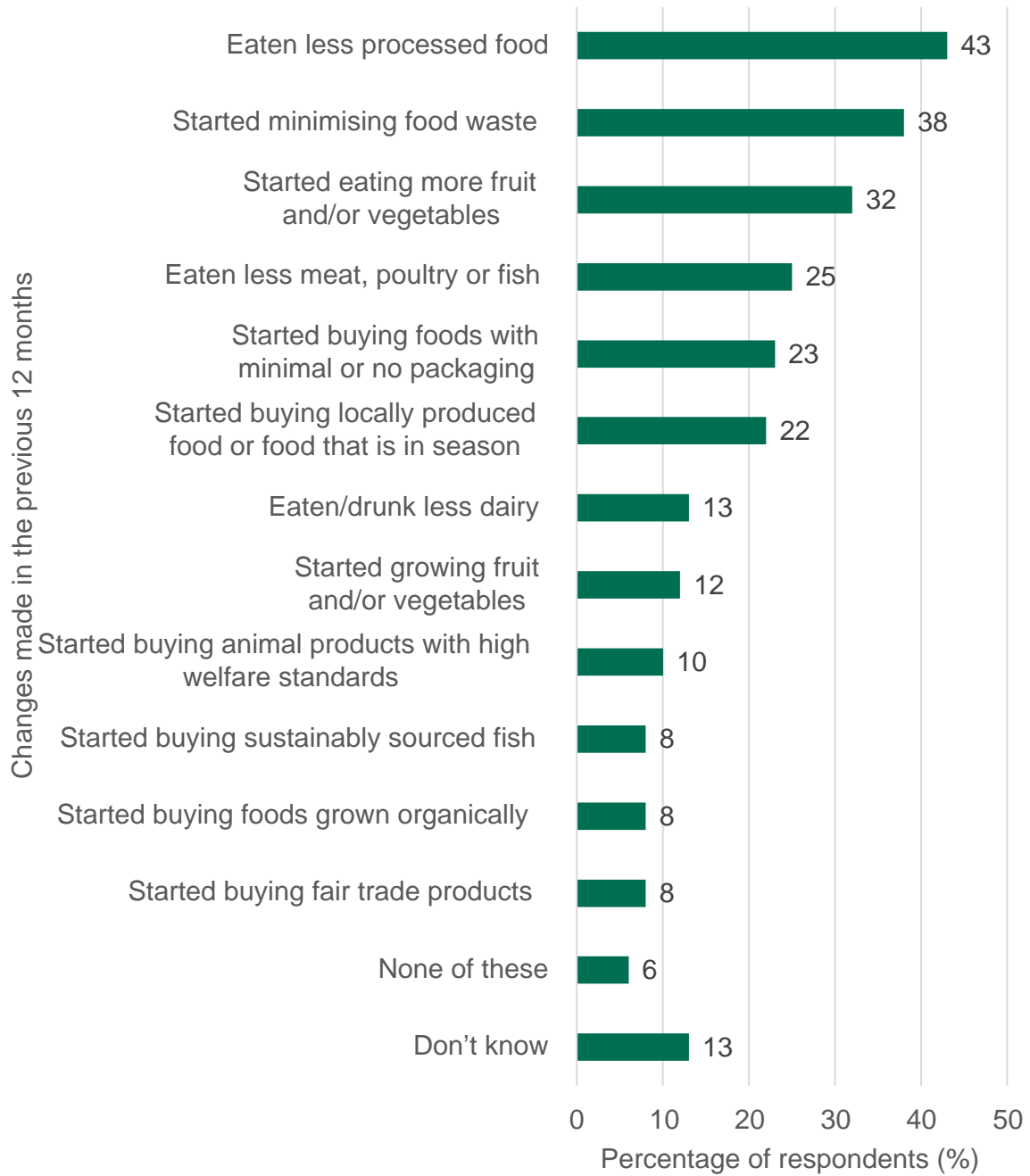
This chapter provides an overview of respondent knowledge, attitudes and behaviours related to changes in eating habits, meat alternatives and genetic technologies.

Changes to eating habits and food-related behaviours

Figure 26. Changes respondents had made in the previous 12 months.

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Changes made in the previous 12 months	Percentage of respondents (%)
Stopped eating meat or poultry or fish completely	2
Started buying foods that have been produced with minimal water usage and / or minimal deforestation	4

Changes made in the previous 12 months	Percentage of respondents (%)
Started buying foods grown organically	8
Started buying animal products with high welfare standards	9
Don't know	13
None of these	6
Started buying fair trade products	8
Started buying foods grown organically	8
Started buying sustainably sourced fish	8
Started buying animal products with high welfare standards	10
Started growing fruit and/or vegetables	12
Eaten/drank less dairy	13
Started buying locally produced food or food that is in season	22
Started buying foods with minimal or no packaging	23
Eaten less meat, poultry or fish	25
Started eating more fruit and/or vegetables	32
Started minimising food waste	38
Eaten less processed food	43

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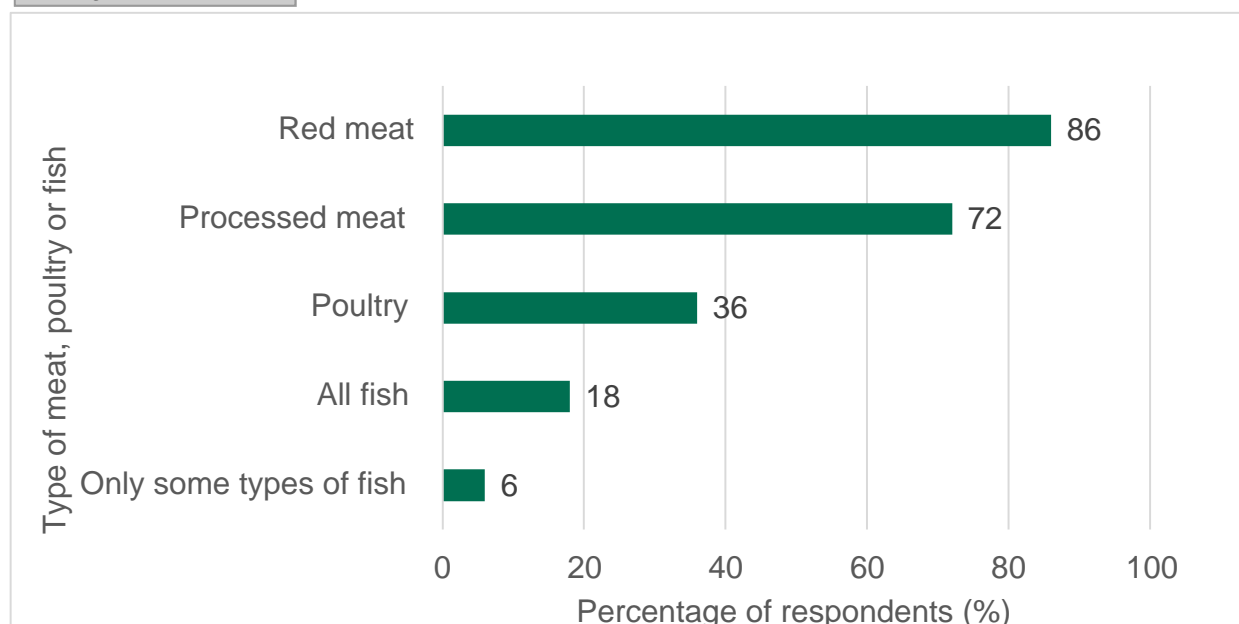
Respondents were asked, from a list of options, which, if any changes they had made in the previous 12 months. The most common changes reported by respondents were that they had eaten less processed food (43%) and started minimising food waste (38%). Almost a third of respondents reported that they had started eating more fruit and vegetables (32%). Around a quarter of respondents reported that they had eaten less meat, poultry, or fish (25%), started buying food with minimal or no packaging (23%) and/or started buying locally produced food or food that is in season (22%) in the previous 12 months. However, 6% of respondents reported that they had not made any of the listed changes and 13% of respondents reported that they did not know if they had made any of the listed changes in the previous 12 months (Figure 26) [\(footnote 1\)](#).

Meat, poultry, and fish: changes in consumption habits

Figure 27. Types of meat, poultry or fish respondents had eaten less of in the previous 12 months.

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Types of meat, poultry or fish	Percentage of respondents (%)
Only some types of fish	6
All fish	18
Poultry	36
Processed meat	72

Types of meat, poultry or fish	Percentage of respondents (%)
Red meat	86

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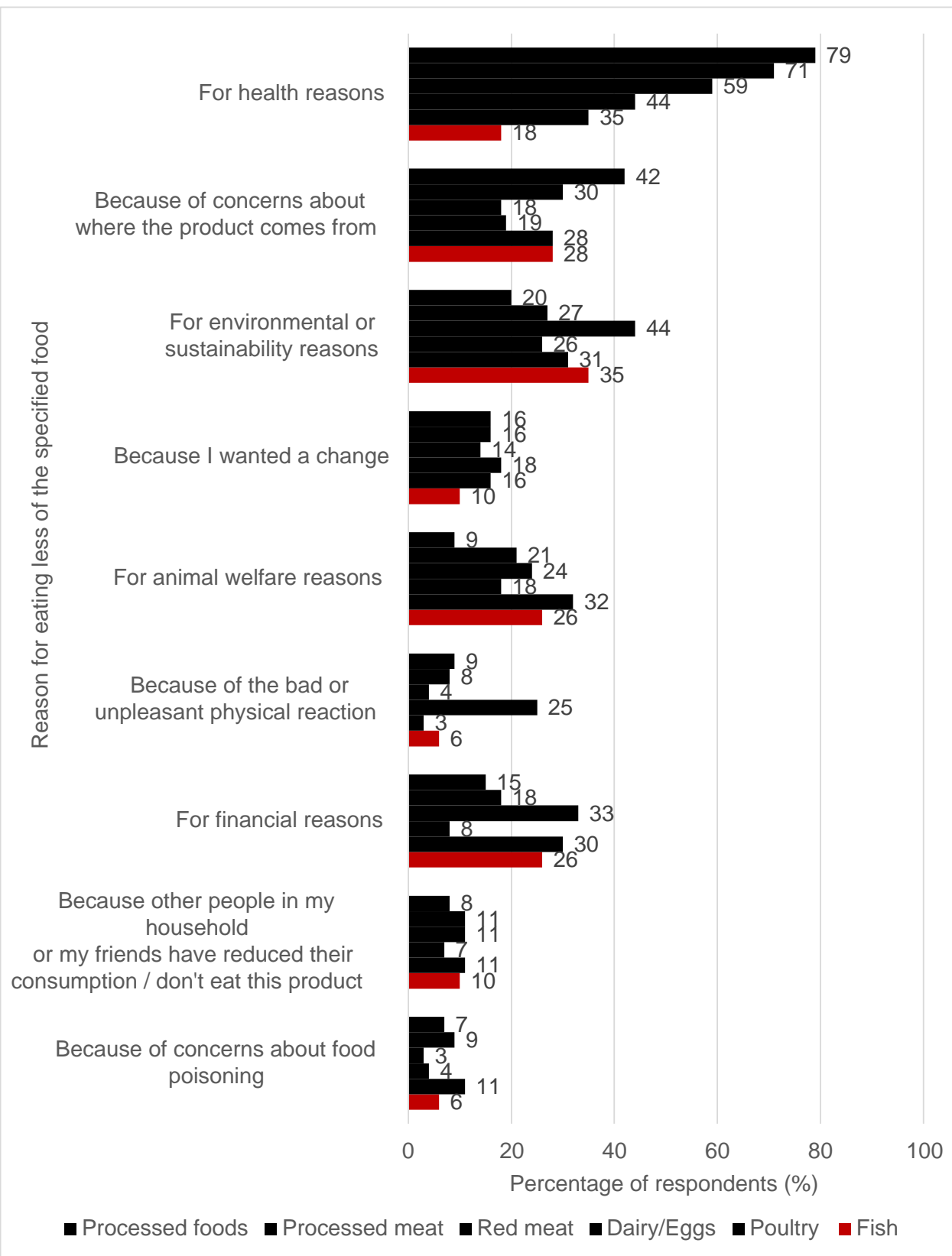
Respondents who reported that they had eaten less meat, poultry, or fish in the previous 12 months were asked which types of products the changes related to. Of these respondents, most (86%) had eaten less red meat (for example, beef, pork, or lamb) and 72% had eaten less processed meat (for example, chicken nuggets, ham, bacon) in the previous 12 months. Around a third (36%) reported that they had eaten less poultry and 18% reported that they had eaten less of all types of fish, with 6% eating less of only some types of fish in the previous 12 months (Figure 27) [\(footnote 2\)](#).

Reasons for changes in consumption habits

Figure 28. Common reasons respondents had eaten less of specified foods in the previous 12 months.

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Reason for eating less of the specified food	Fish	Poultry	Dairy/Eggs	Red meat	Processed meat	Processed foods
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Because of concerns about food poisoning	6	11	4	3	9	7
Because other people in my household or my friends have reduced their consumption / don't eat this product	10	11	7	11	11	8
For financial reasons	26	30	8	33	18	15
Because of the bad or unpleasant physical reaction	6	3	25	4	8	9
For animal welfare reasons	26	32	18	24	21	9
Because I wanted a change	10	16	18	14	16	16
For environmental or sustainability reasons	35	31	26	44	27	20
Because of concerns about where the product comes from	28	28	19	18	30	42

For health reasons	18	35	44	59	71	79
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Respondents who reported that they had eaten less processed food, red meat, processed meat, poultry, fish or dairy and/or eggs in the previous 12 months were asked, which, if any of the given options, was the reason that they had eaten less of that product. The most common reason to have eaten less processed food (79%), processed meat (71%), red meat (59%), dairy and/or eggs (44%) and poultry (35%) was for health reasons (for example, to be more healthy or lose weight). The most common reason to have eaten less fish (35%) was for environmental or sustainability reasons (for example, impact on climate change). Around 3 in 10 respondents reported that they had eaten less red meat (33%), poultry (30%) and/or fish (26%) for financial reasons. Respondents were more likely to report that they had eaten less dairy and/or eggs (25%) because of a bad or unpleasant physical reaction compared to other foods (Figure 28 [\(footnote 3\)](#)).

Meat alternatives

Meat alternatives are meat-free products that may be eaten instead of meat, such as seitan or vegetarian sausages and burgers (for example, Quorn, Linda McCartney, or Beyond Meat products).

Meat alternative consumption

Respondents were asked if they had ever eaten meat alternatives. Around a quarter (27%) of respondents reported that they currently eat meat alternatives, 22% of respondents reported that they used to eat meat alternatives but no longer do, and 44% of respondents reported that they had never eaten meat alternatives [\(footnote 4\)](#).

Of the respondents who currently eat meat alternatives, 30% reported eating meat alternatives 2-3 times a week or more often (i.e., every day, most days, 2-3 times a week), 43% reported eating meat alternatives occasionally (i.e., about once a week, 2-3 times a month) and 25% reported eating meat alternatives about once a month or less often [\(footnote 5\)](#).

Respondents who reported that they currently eat meat alternatives were asked why they eat meat alternatives from a list of options. The most common reasons were for environmental or sustainability reasons (34%), for health reasons (34%), because they like the taste (33%), and for animal welfare reasons (32%) [\(footnote 6\)](#).

Willingness to try lab-grown meat

'Lab-grown meat' is grown in a laboratory from the cells or tissue of a live animal such as a cow, without having to kill the animal.

Respondents were asked if they would like to try including lab-grown meat in their diet if it became available in this country. Almost 3 in 10 (28%) respondents reported that they would like to try lab-grown meat and 60% would not. However, 11% of respondents reported that they didn't know whether they would like to try including lab-grown meat in their diet [\(footnote 7\)](#).

Awareness of gene-edited (GE) and genetically modified (GM) foods

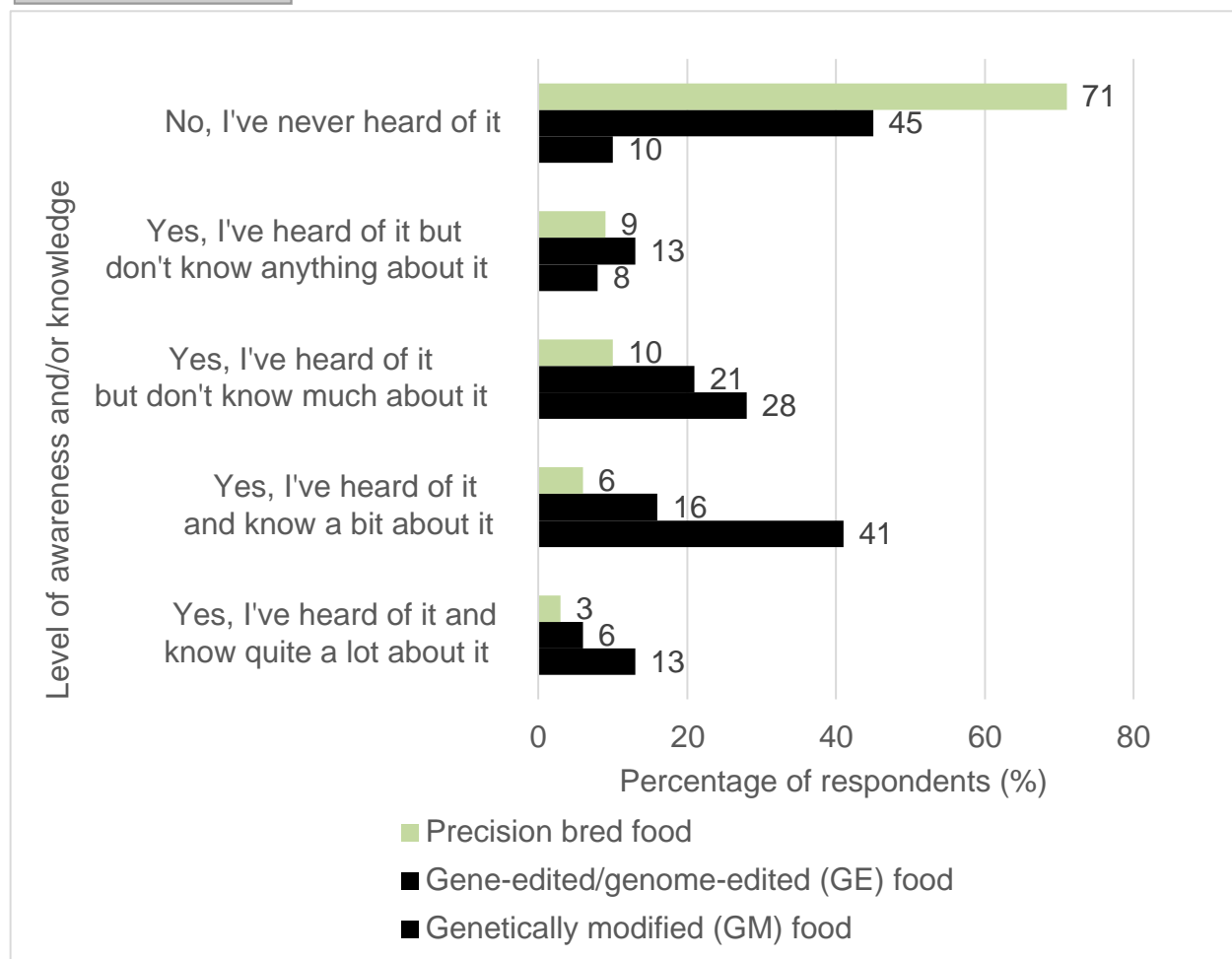
[Genetically modified foods](#) can be defined as organisms (i.e. plants or animals) in which the genetic material (DNA) has been altered in a way that does not occur naturally by mating and/or natural recombination.

[Precision breeding](#) is a way of changing the DNA of plants or animals in a precise way, using techniques including gene-editing. Gene-editing uses specialised enzymes to cut DNA at specific points. These changes must be equivalent to those that could have been made using traditional plant or animal breeding methods.

Figure 29. Awareness and knowledge of genetically modified (GM), gene-edited/genome-edited (GE), and precision bred food.

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Level of awareness and/or knowledge	Genetically modified (GM) food	Gene-edited/genome-edited (GE) food	Precision bred food
Yes, I've heard of it and know quite a lot about it	13	6	3
Yes, I've heard of it and know a bit about it	41	16	6
Yes, I've heard of it but don't know much about it	28	21	10
Yes, I've heard of it but don't know anything about it	8	13	9
No, I've never heard of it	10	45	71

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Respondents were asked if they had ever heard of genetically modified (GM) food, gene-edited or genome-edited food, and precision bred food. Respondents reported greater awareness and knowledge of genetically modified (GM) food than gene-edited or genome-edited food (GE) and least knowledge of precision bred food. For example, 71% of respondents had never heard of precision bred food, 45% of respondents had never heard of GE food, 10% of respondents had never heard of GM food (Figure 29) [\(footnote 8\)](#).

1. Question Which, if any, of the following changes have you made in the last 12 months?
Responses: Stopped eating meat or poultry or fish completely, Eaten less meat or poultry or fish, Eaten/drank less dairy, Eaten less processed food, Started eating more fruit and/or vegetables, Started minimising food waste, Started growing fruit and/or vegetables, Started buying animal products with high welfare standards, Started buying fair trade products, Started buying locally produced food or food that is in season, Started buying foods with minimal or no packaging, Started buying foods that have been produced with minimal water usage and / or minimal deforestation, Started buying foods grown organically, Started buying sustainably sourced fish, Started getting food from the waste area or bins of a supermarket or shop (i.e., freeganism), Other, None of these, Don't know. Base= 4757, all online respondents, and those answering the 'Eating at Home' postal questionnaire.

2. Question What types of meat, poultry and/or fish have you eaten less of in the last 12 months? Responses: Red meat, e.g. beef, pork or lamb; Processed meat, e.g. chicken nuggets, ham, bacon, sausages, salami; Poultry, e.g. chicken, turkey, duck; All fish; Only some types of fish; I haven't eaten less meat, poultry and/or fish in the last 12 months. Base= 1094, all online respondents and those who completed the 'Eating at Home' postal questionnaire who have eaten less meat, poultry and/or fish in the last 12 months.
3. Question: You have said that you have eaten less ...A/B/C/D/E/F... in the last 12 months. Which of the following reasons, if any, explain why you chose to make this change? A) red meat B) processed meat, C) poultry, D) fish, E) dairy and/or eggs, F) processed foods. Responses: For animal welfare reasons, For environmental or sustainability reasons, e.g. impact on climate change, For financial reasons, e.g. cost of meat or reduced income, For health reasons, e.g. to be more healthy or lose weight, For religious reasons, Because of the bad or unpleasant physical reaction eating A/B/C causes me (e.g. food intolerance), Because of concerns about food poisoning, Because other people in my household or my friends have reduced their A/B/C consumption or don't eat meat, Because of advice from friends or family, Because of advice from celebrities or influencers, Because of concerns about where meat comes from, Because I wanted a change, Due to pregnancy, None of these, Other, Prefer not to say. Base A = 783, B= 724, C=344, D=231, E=478, F=1783, all online respondents who have eaten less A/B/C/D/E/F in the last 12 months.
4. Question: Have you ever eaten meat alternatives? Responses: Yes, I currently eat meat alternatives; Yes, I used to eat meat alternatives, but I don't now; No, I have never eaten meat alternatives; I have never heard of meat alternatives; Don't know. Base= 4757, all online respondents, and those answering the 'Eating at Home' postal questionnaire.
5. Question: How often do you eat meat alternatives? Responses: Every day, Most days, 2-3 times a week, About once a week, 2-3 times a month, About once a month, Less than once a month, Don't know. Base= 1184, all online respondents and those who completed the 'Eating at Home' postal questionnaire who currently eat meat alternatives.
6. Question: Which of the following reasons, if any, explain why you choose to eat meat alternatives? Responses: For animal welfare reasons; For environmental or sustainability reasons, e.g. impact on climate change; For financial reasons, e.g. cheaper than meat; For health reasons, e.g. to be more healthy or lose weight; For religious reasons; Because I don't eat meat; Because of concerns about food poisoning; Because another person has cooked meat alternatives for me or I've cooked them for others; Because of advice from friends or family; Because of advice from celebrities or influencers; Because I like the taste ; Because of concerns about where meat comes from; Because I wanted a change; Due to pregnancy; Other reason; None of these; Prefer not to say. Base= 1961, all online respondents who currently eat meat alternatives
7. Question: Would you like to try including lab-grown meat in your diet, if it became available in this country? Responses: I definitely would like to try this, I probably would like to try this, I probably would not like to try this, I definitely would not like to try this, Don't know. Base= 3915, all online respondents.
8. Question: Have you ever heard of...A/B/C? A) Genetically modified (GM) food? B) Gene-edited or genome-edited food? C) Precision bred food. Responses: Yes, I've heard of it and know quite a lot about it; Yes, I've heard of it and know a bit about it; Yes, I've heard of it

but don't know much about it; Yes, I've heard of it but don't know anything about it; No, I've never heard of it. Base= 4757, all respondents.