

Chapter 8: Sustainable diets, meat alternatives and genetic technologies

Introduction

The FSA's vision as set out in the [2022-2027 strategy](#) is a food system in which 'food is healthier and more sustainable', accounting for the growing priorities of dietary health and sustainability for the UK Government, Welsh Government, Northern Ireland Executive, and for consumers.

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) and gene edited (GE) organisms.

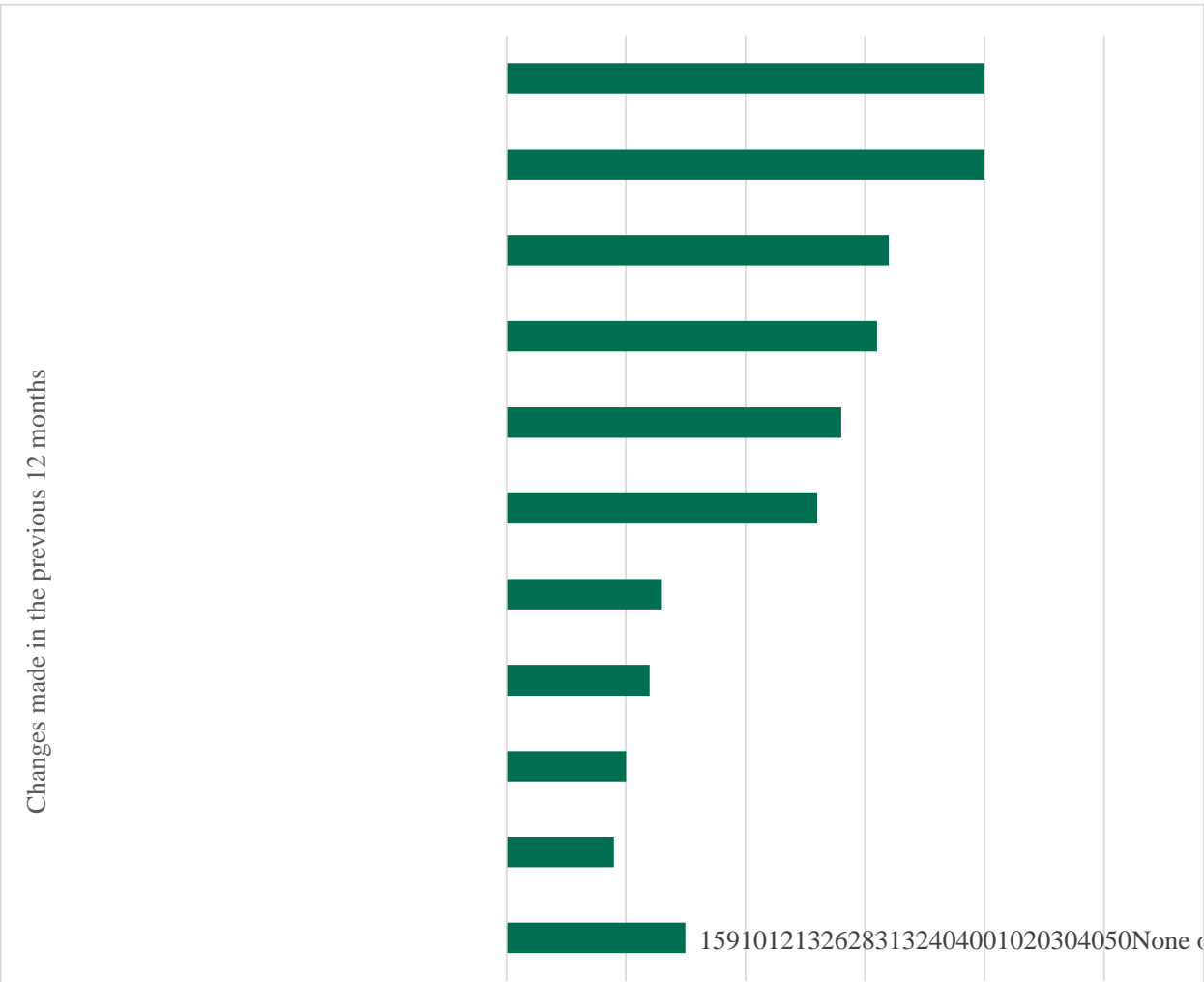
This chapter provides an overview of respondent knowledge, attitudes and behaviours relating to sustainable foods, meat alternatives and genetic technologies. Defra co-funded questions in this chapter which relate to the environmental impact and sustainability of food.

Changes to eating habits and food-related behaviours

Figure 25. Changes which 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
Started buying foods grown organically	8
Started buying animal products with high welfare standards	9
None of these	15
Started buying sustainably sourced fish	9

Changes made in the previous 12 months	Percentage of respondents
Started buying fair trade products	10
Started growing fruit	
and/or vegetables"	12
Eaten/drunk less dairy	13
Started buying locally produced	
food or food that is in season"	26
Eaten less meat, poultry or fish	28
Started buying foods with	
minimal or no packaging"	31
Started eating more fruit	
and/or vegetables"	32
Started minimising food waste	40
Eaten less processed food	40

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Source: Food and You 2: Wave 4

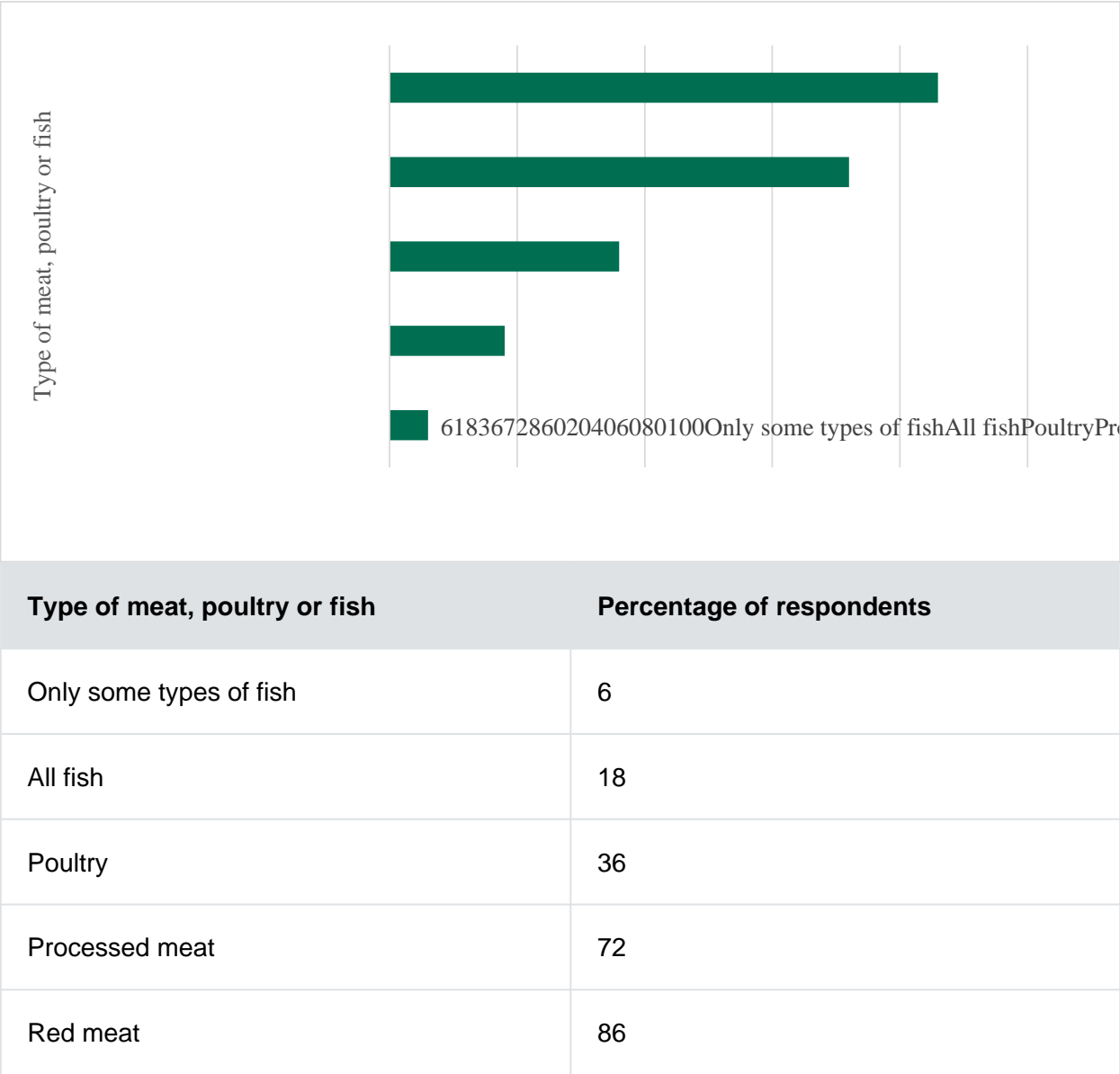
Respondents were asked, from a list of options, which, if any changes they had made in the previous 12 months. The most common changes reported by respondents were that they had eaten less processed food (40%) and started minimising food waste (40%). Almost a third of respondents reported that they had started eating more fruit and vegetables (32%), started buying food with minimal or no packaging (31%) and/or had eaten less meat, poultry, or fish (28%) in the previous 12 months. Around a quarter (26%) of respondents reported that they had started buying locally produced food or food that is in season. However, 15% of respondents reported that they had not made any of the listed changes in the previous 12 months (Figure 25)([footnote](#)).

Meat, poultry and fish: changes in consumption habits

Figure 26. Types of meat, poultry or fish which respondents had eaten less of in the previous 12 months

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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

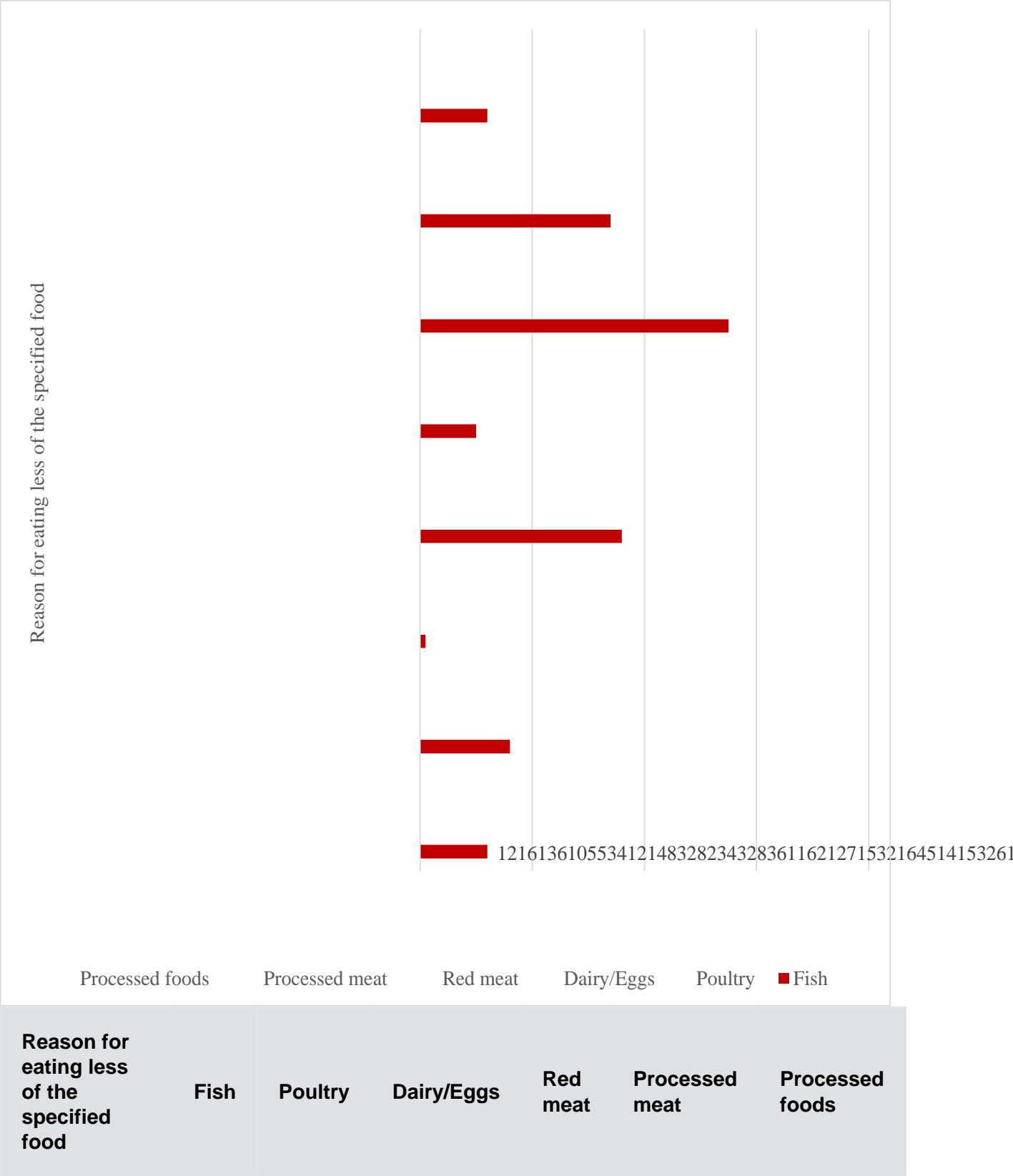
respondents (86%) had eaten less red meat (for example, beef, pork, or lamb) and 72% had eaten less processed meat (for example, chicken nuggets, ham, bacon) in the previous 12 months. Over a third (36%) of respondents reported that they had eaten less poultry and 18% of respondents reported that they had eaten less of all types of fish, with 6% eating less of only some types of fish in the previous 12 months (Figure 26)([footnote](#)).

Reasons of changes in consumption habits

Figure 27. Health was the most common reason to have eaten less processed foods, processed meat, red meat, dairy and/or eggs

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Because other people in my household or my friends have reduced their consumption / don't eat this product	12	14	11	14	14	7
For financial reasons	16	8	6	15	7	7
Because of the bad or unpleasant physical reaction	1	3	21	3	4	8
For animal welfare reasons	36	28	27	26	24	10
Because I wanted a change	10	23	15	19	18	19
For environmental or sustainability reasons	55	43	32	55	36	20
Because of concerns about where the product comes from	34	28	16	16	24	32
For health reasons	12	36	45	57	69	75

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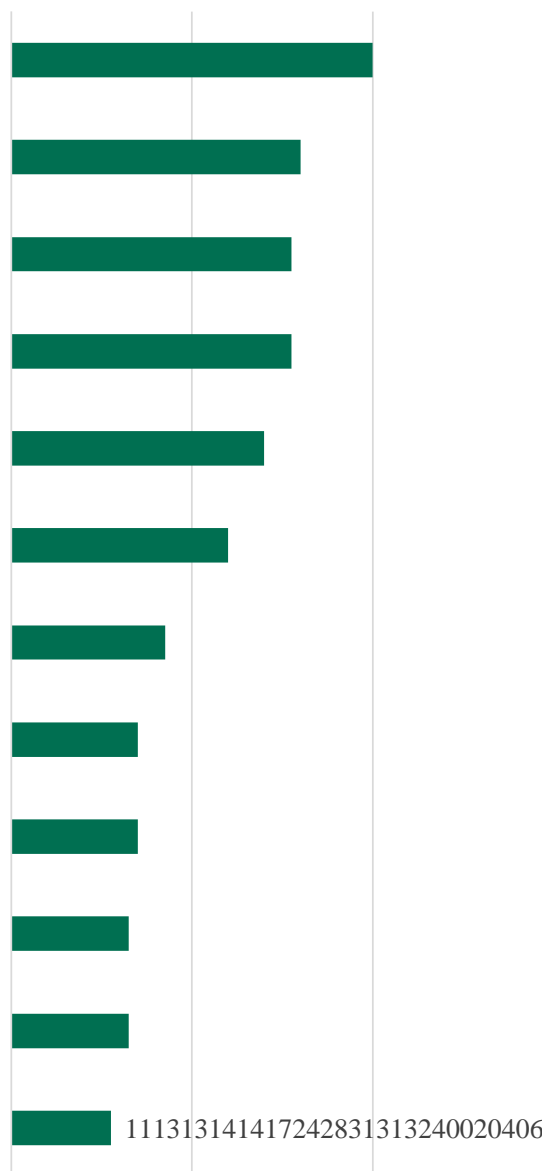
Respondents who reported that they had eaten less processed food, red meat, process meat, poultry, fish or dairy and/or eggs in the previous 12 months were asked, which, if any of the given options, were the reasons that they had eaten less of that product. The most common reason to have eaten less processed food (75%), processed meat (69%), red meat (57%), dairy and/or eggs (45%) were for health reasons (for example, to be more healthy or lose weight). The most common reason to have eaten less fish (55%) or poultry (43%) was for environmental or sustainability reasons (for example, impact on climate change). Respondents were more likely to report that they had eaten less dairy and/or eggs (21%) because of the bad or unpleasant physical reaction eating dairy and/or eggs causes compared to other foods (for example, 1% of respondents had eaten less fish because of the bad or unpleasant physical reaction it causes) (Figure 27)([footnote](#)).

Food related changes which respondents are willing to try

Figure 28. Changes which respondents were willing to try in the following 12 months

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Type of change	Percentage of respondents
Other	2
Stop eating meat or poultry or fish completely	4
Don't know	7
Start growing fruit and/or vegetables	11

Type of change	Percentage of respondents	
Start buying foods grown organically	11	
None of these	11	
Eat/drink less dairy, e. g. milk, cheese, butter or eggs	12	
Start buying sustainably sourced fish	13	
Replace dairy products with plant-based alternatives such as soya	oat or almond milk"	13
Start buying Fairtrade products	14	
Start buying animal products with high welfare standards"	14	
Start buying foods that have been produced with minimal water usage and/or minimal deforestation"	17	
Eat less meat or poultry or fish	24	
Start buying locally produced food or food that is in season"	28	
Start minimising food waste	31	
Start eating more fruit and/or vegetables	31	
Start buying foods with		

Type of change	Percentage of respondents
minimal or no packaging"	32
Eat less processed food	40

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Source: Food and You 2: Wave 4

Respondents were asked which, if any, of a given list of changes, they were willing to try in the following 12 months. The most common change that respondents reported that they were willing to try was to eat less processed food (40%). Around a third of respondents reported that they were willing to start buying food with minimal or no packaging (32%), start minimising food waste (31%) or start eating more fruit and/or vegetables (31%) in the following 12 months. However, 11% of respondents reported that they would not be willing to try any of the changes listed in the following 12 months (Figure 28)([footnote](#)).

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 third (32%) of respondents reported that they had eaten meat alternatives, 21% of respondents reported that they used to eat meat alternatives but no longer do and 39% of respondents reported that they had never eaten meat alternatives([footnote](#)).

Of the respondents who currently eat meat alternatives, 34% reported eating meat alternatives 2-3 times a week or more often (for example, every day, most days, 2-3 times a week), 45% reported eating meat alternatives occasionally (i.e., about once a week, 2-3 times a month) and 21% reported eating meat alternatives about once a month or less often (i.e., about once a month, less than once a month)([footnote](#)).

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 (41%), for animal welfare reasons (35%) and for health reasons (35%)([footnote](#)).

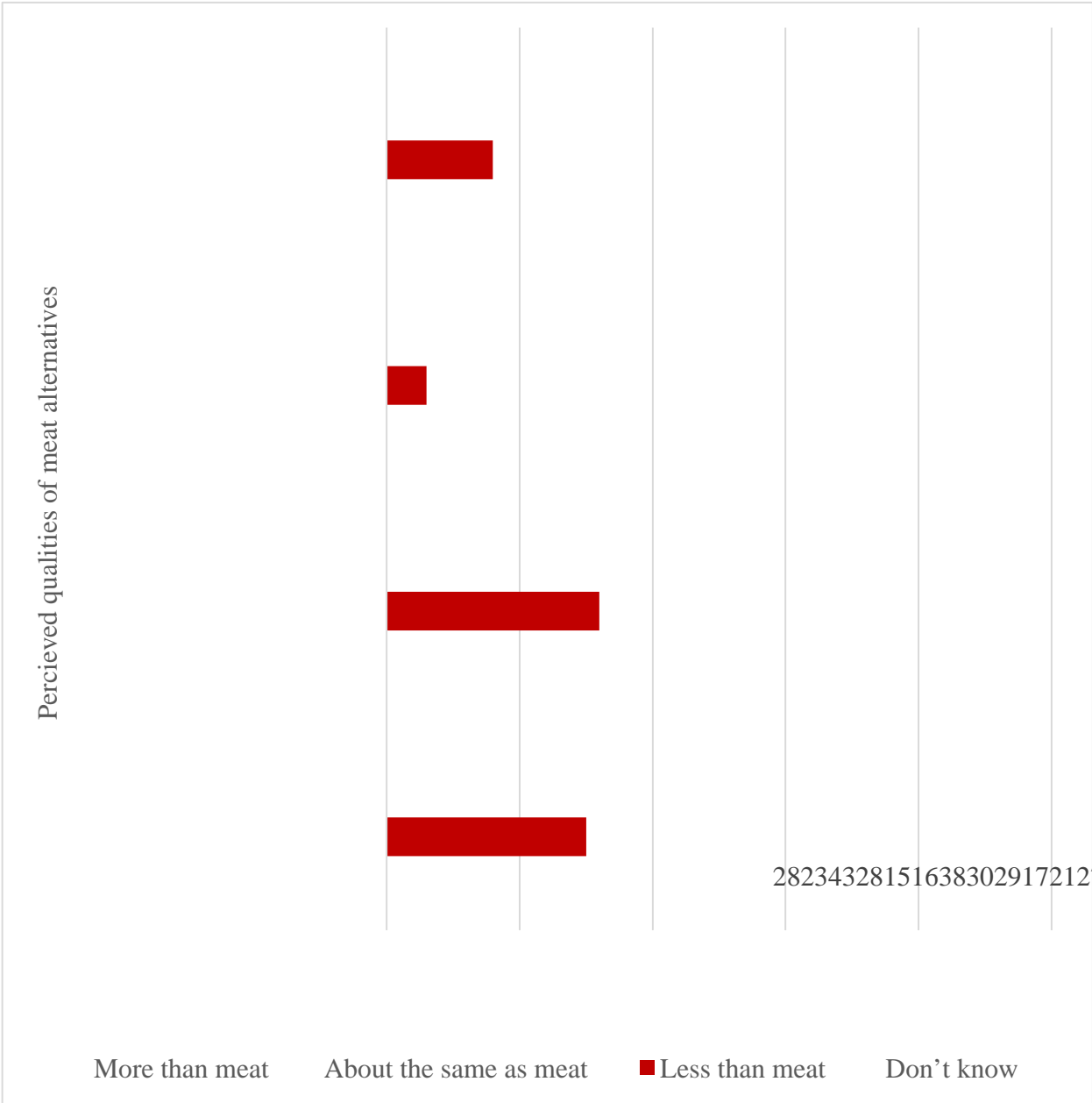
Perceptions of meat alternatives compared to meat

Figure 29. Around 4 in 10 respondents think that shop-bought meat alternatives are more environmentally friendly

than meat

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Perceived qualities of meat alternatives	Don?t know	Less than meat	About the same as meat	More than meat
Healthy	28	15	30	27
Expensive	23	16	29	33

Perceived qualities of meat alternatives	Don't know	Less than meat	About the same as meat	More than meat
Refrigerated shelf-life	43	3	17	36
Environmentally friendly	28	8	21	42

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Source: Food and You 2: Wave 4

Respondents were asked how they think meat alternatives compared to meat on several qualities including environmental impact, shelf life, cost, and healthiness. Around 4 in 10 respondents thought that meat alternatives were more environmentally friendly (42%) and would last longer in the fridge (36%) compared to meat. However, many respondents did not know how meat alternatives compare to meat when considering how long refrigerated shop-bought meat alternatives last (43%), how environmentally friendly (28%), healthy (28%) and expensive (23%) shop-bought meat alternatives are (Figure 29)([footnote](#)).

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.

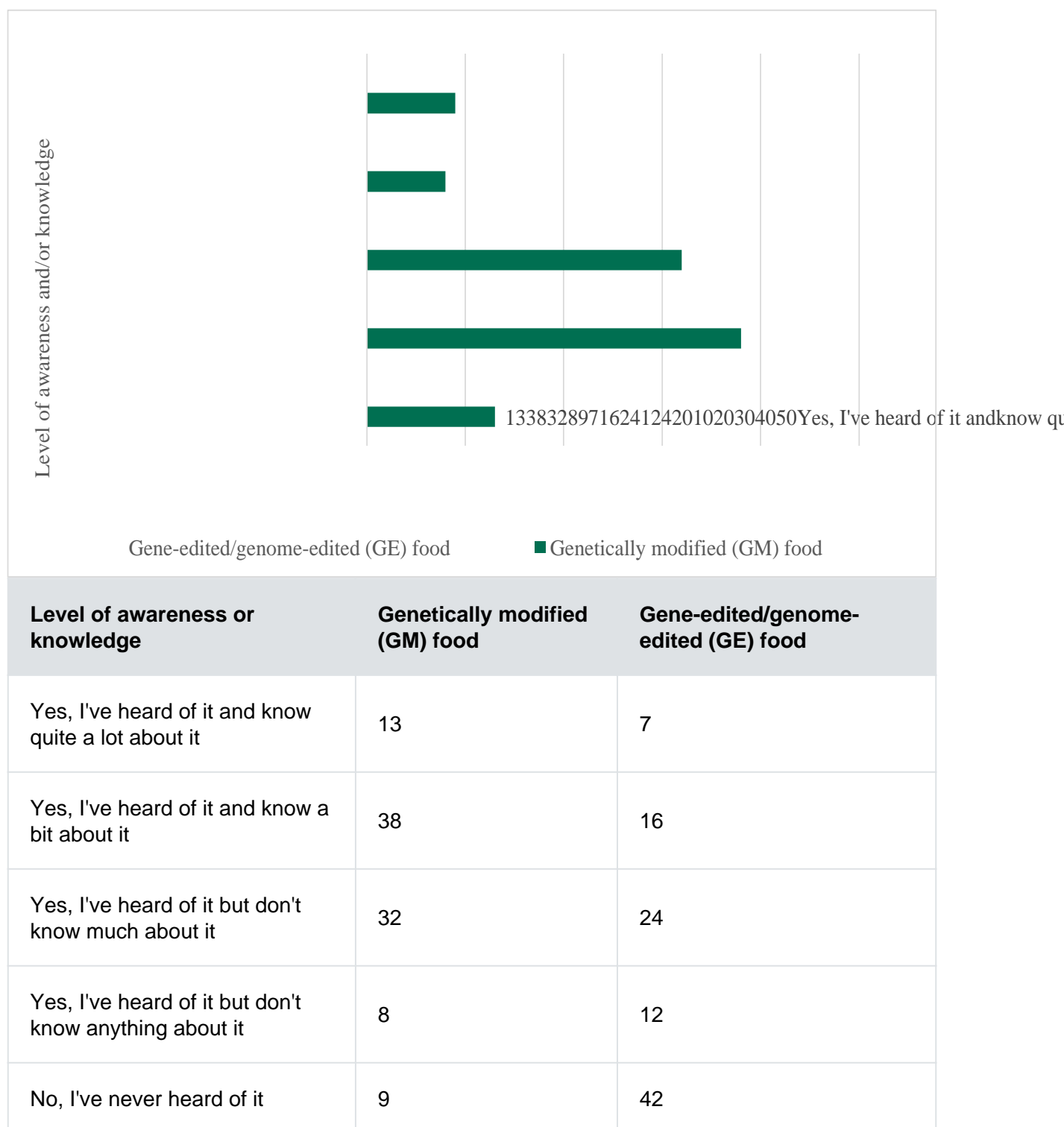
Respondents were asked if they would like to try including lab-grown meat in their diet if it became available in this country. Almost 3 in 10 (28%) respondents reported that they would like to try lab-grown meat (for example, 9% would definitely like to try; 18% probably would try) and around 6 in 10 (59%) would not (for example, 21% would probably not like to try, 38% would definitely not like to try). However, 14% of respondents reported that they didn't know whether they would like to try including lab-grown meat in their diet([footnote](#)).

Awareness of gene edited (GE) and genetically modified (GM) and gene edited/genome edited (GE) food

Figure 30. Awareness and knowledge of genetically modified (GM) food is greater than that of gene-edited / genome-edited (GE) food

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Respondents were asked if they had ever heard of genetically modified (GM) food and gene-edited or genome-edited food. Respondents reported greater awareness and knowledge of genetically modified (GM) food than gene-edited or genome-edited food (GE). For example, 42% of respondents had never heard of GE food and 9% of respondents had never heard of GM food (Figure 30)([footnote](#)).