Akademie věd České republiky
Strategie AV21
Špičkový výzkum ve veřejném zájmu

Press Release

Czech Public Opinion on the Issue of GM Crops – Food 2021

- The majority of respondents (74%) surveyed said that were familiar with the term 'genetically modified crops'. Just under one-tenth of them (8%) said they knew what it means, one-third (35%) said they had a rough idea, and almost one-third (31%) said they had heard the term but did not know what it means.
- The Czech public have little interest in the subject of genetically modified crops. While around one-fifth (21%) of respondents said they were interested in the subject of GM crops, the majority expressed no interest (78%).
- More than three-quarters of the Czech public (77%) think that food labels should include information about whether a food item or its ingredients have been genetically modified; 54% feel they definitely should, and 23% feel they probably should.
- Slightly less than one-quarter (23%) of Czech citizens believe that the genetic modification of crops is morally wrong.
- The opinion of the Czech public is somewhat divided on what effects foods made from GM crops have on human health – around one-third (34%) of respondents thought foods from GM crops could be a risk to human health, but a comparable share (32%) said the opposite and thought they pose no risk to human health, while another one-third (34%) said they 'don't know'.
- Almost one-half (47%) of respondents said they would be willing to take medicines that contain genetically modified organisms.
- A more than one-half majority (57%) of the Czech public agree that foods made from GM crops could be used in areas where there are food shortages, while just under one-fifth take the opposite view (17%).

Prepared by:
Radka Hanzlová
Public Opinion Research Centre, Institute of Sociology of the Czech Academy of Sciences
Tel.: 210 310 587; e-mail: radka.hanzlova@soc.cas.cz
Ing. Vojtěch Hudzieczek, Ph.D.
Institute of Biophysics of the Czech Academy of Sciences
Tel.: 541 517 203; e-mail: hudzieczek@ibp.cz

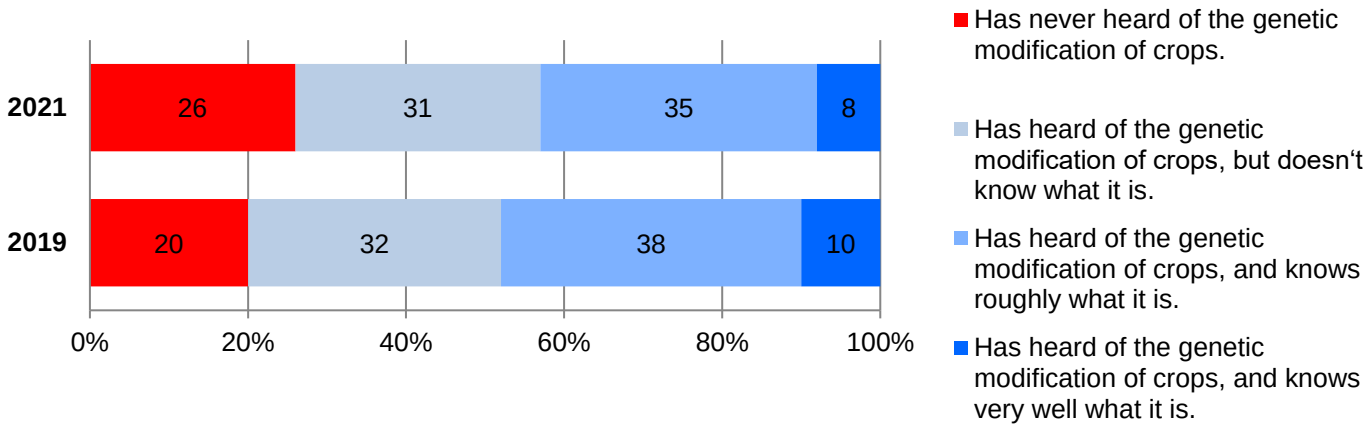
In a special survey called *Food 2021* the Public Opinion Research Centre at the Institute of Sociology, Czech Academy of Sciences, surveyed the Czech public for its opinions on genetically modified organisms (GMOs) and crops (GM crops) used to produce the food we consume. We specifically asked respondents whether they had ever heard of 'genetically modified crops'. We asked them to tell us how interested they are in the subject of GM crops and whether they feel they have enough information about the issue of GM crops. We then asked respondents to indicate whether they agreed or disagreed with several statements relating to the moral aspects of the genetic modification of crops and the human health effects of consuming foods made from GM crops. The survey also included questions on the taste of food made from GM crops and how right it is to use foods made from GM crops in places where there are shortages of food and many other things.

Genetically modified organisms and crops are currently the subject of numerous discussions but they are especially discussed in connection with potential effects and risks to human health. Vojtěch Hudzieczek from the Institute of Biophysics at the Czech Academy of Sciences said: 'Although genetically modified organisms (GMOs) have been commercially available for almost thirty years, in some segments of the population there continue to be concerns

about their use. The majority of pharmaceuticals are produced with the aid of GM microorganisms, but consumers still tend to take a sceptical view of foods produced from GM crops and animals fed with GM plants. This is especially true in Europe, where strict legislation makes it more difficult to grow GM crops. This continues to be the situation despite strong calls from the scientific community and agricultural organisations to change things.'

We will now look at the Czech public's opinion on the genetic modification of the crops that are used to produce the foods we eat. The first question in the survey aimed to determine how familiar respondents were with the term 'genetically modified crops' and whether they had already encountered it anywhere. According to the survey results (see Figure 1), more than one-quarter (26%) of respondents had never heard of genetically modified crops. A clear majority of them (74%), however, had heard of GM crops, just under one-tenth of them (8%) were certain they knew what the term means, around one-third (35%) knew roughly what the term means, and another just under one-third (31%) had encountered the term but did not know what it means. We can therefore say that even though the majority of the Czech public have already heard of genetically modified crops, only just over two-fifths (43%) of them know what it means. A time comparison, specifically a comparison between the present and the year 2019, reveals that there has been an increase in the number of people who have never heard of the genetic modification of crops (an increase of 6 percentage points).

Figure 1: How familiar people are with 'genetically modified crops' (%)[1]



Note: In 2019 the term 'genetically modified foods' was used.

Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, *Our Society*, 'Food'.

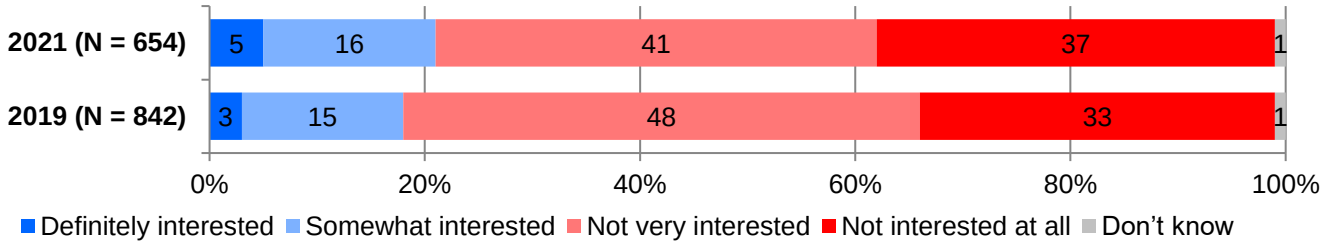
An analysis from the perspective of sociodemographic characteristics indicated that the likelihood of having heard about genetically modified crops increases the higher a person's level of education and the better their household standard of living, and there is also a linkage to age, as people between the ages of 20 and 44 were more familiar with the term.

In terms of the Czech public's interest in the subject of genetically modified crops, Figure 2 shows that the amount of interest in the subject is very low. Around one-fifth of respondents said they were interested in the subject of genetically modified crops (21%); 16% of them said they were 'somewhat interested' and 5% said they were 'very interested'. The majority of citizens said, however, they were not interested in this subject (78%), and of them just over two-fifths (41%) were 'not very interested' and more than one-third (37%) said they were 'not interested at all'.

[1] Question wording: 'Have you ever heard of "genetically modified crops"?' Response options: 'no, you've never heard of genetically modified crops; you've heard of genetically modified crops but you don't know what they are; you've heard of genetically modified crops and you have a rough idea what they are; you've heard of genetically modified crops and you know very well what they are.'

In a comparison with the year 2019, which is shown in Figure 2, we can see that there were no big changes in how interested people are in the subject of genetically modified crops. There was, however, a decrease in the share of people who said they were 'not very interested' (a decrease of 7 percentage points) and an increase in the share who said they were 'not interested at all' (an increase of 4 percentage points).

Figure 2: The Czech public's interest in genetically modified crops (in %; only those respondents who had heard of genetically modified crops)[2]



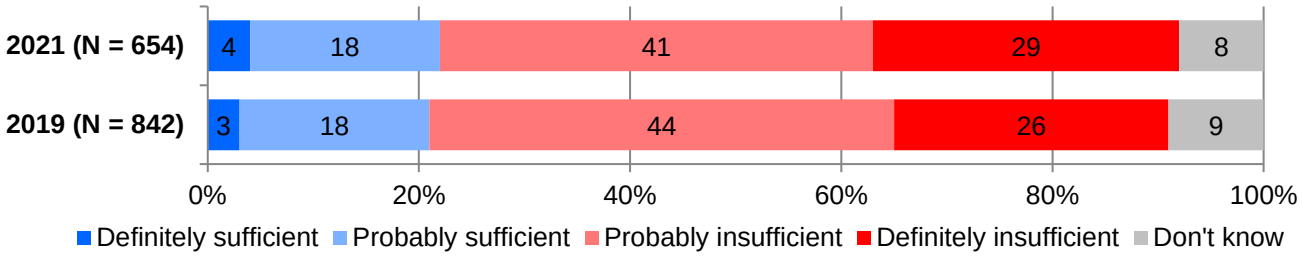
Note: In 2019 'genetically modified foods' was the term used. N = number of respondents.

Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, *Our Society*, 'Food'.

When we look at other differentiating characteristics, we find that the respondents who expressed the most interest in the subject of genetically modified crops were the ones between the ages of 20 and 44, those on the right side of the political spectrum, those with a good household standard of living, those who claimed to have enough information about genetically modified crops, and those who 'always' or 'often' look for this information on food labels. The level of interest also rises with increasing levels of education.

Respondents were also asked to assess whether they think they have sufficient or insufficient information about genetically modified crops. Figure 3 shows that just over one-fifth (22 %) of respondents believe they have sufficient information, and among them 4% said the information they have is 'definitely' sufficient and 18% that it is 'probably' sufficient. By contrast, 70% of respondents said they have insufficient information, of which 29% said it is 'definitely insufficient' and 41% that it is 'probably insufficient'. The results of the current survey are statistically comparable to the results from 2019.

Figure 3: Available information on genetically modified crops (in %; only those respondents who had heard of genetically modified crops)[3]



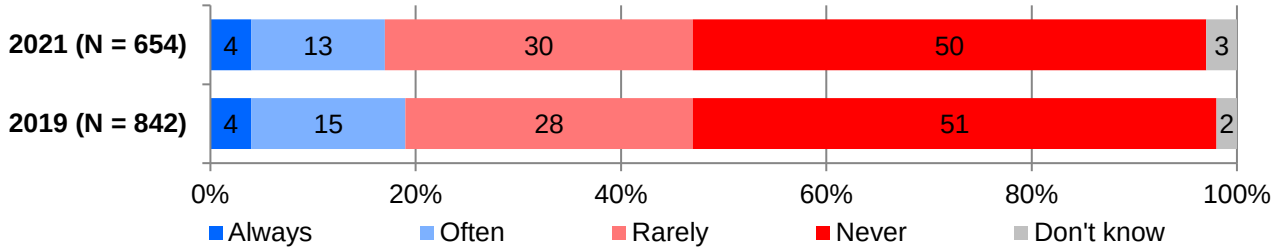
Note: In 2019 'genetically modified foods' was the term that was used. N = number of respondents.

Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, *Our Society*, 'Food'.

[2] Question wording: 'Are you, personally, interested in genetically modified crops?' Response options: definitely interested, somewhat interested, not very interested, not interested at all.
[3] Question wording: 'Do you have sufficient information or insufficient information about genetically modified crops?' Response options: definitely sufficient, probably sufficient, probably insufficient, definitely insufficient.

Moving on from the public's general familiarity with genetically modified crops, when we look at the respondents' consumer and consumption behaviour in relation to GM crops (see Figure 4), we find that one-half (50%) of the Czech public 'never' check the labels or descriptions of food products for information about genetically modified crops, and just under one-third (30%) do so only 'rarely'. Only a very small fraction of respondents (4%) 'always' look for this information, and around one-eighth (13%) do so 'often'. There were no statistically significant shifts in respondents' answers compared to 2019.

Figure 4: How often people check food labels or descriptions for information about genetically modified crops (in %; only those respondents who had heard of genetically modified crops)[4]



Note: In 2019 'genetically modified foods' was the term that was used. N = number of respondents.

Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, *Our Society*, 'Food'.

All the survey respondents were also presented with five statements relating to the moral aspects of the genetic modification of crops and the effects of consuming foods made from GM crops on human health and were asked to indicate how much they agree or disagree with each statement.

More than three-quarters of respondents (77%) believe that information about the genetic modification of food or their ingredients should be included on product labels. More than one-half (54%) agree strongly with this view and (23%) somewhat agree. By contrast, less than one-twentieth (4%) do not believe that this information needs to be included on product labels, and just under one-tenth (7%) are in the middle between agreeing and disagreeing (see Figure 5).

More than one-quarter (26%) of respondents said that their decision to buy a food production would be affected if they learned that it contained GM ingredients. Specifically, 10% said they would definitely not buy the product, and 16% said they would probably not buy it. One-fifth (20%) of respondents would waver over whether to buy the product. For almost one-fifth (38%) of people, this information would not alter their decision to buy a food – 29% of them said they would probably still buy it and just under one-tenth (9%) said they definitely would. The approximately one-sixth (16%) of remaining respondents said they did not know how they would behave in this situation.

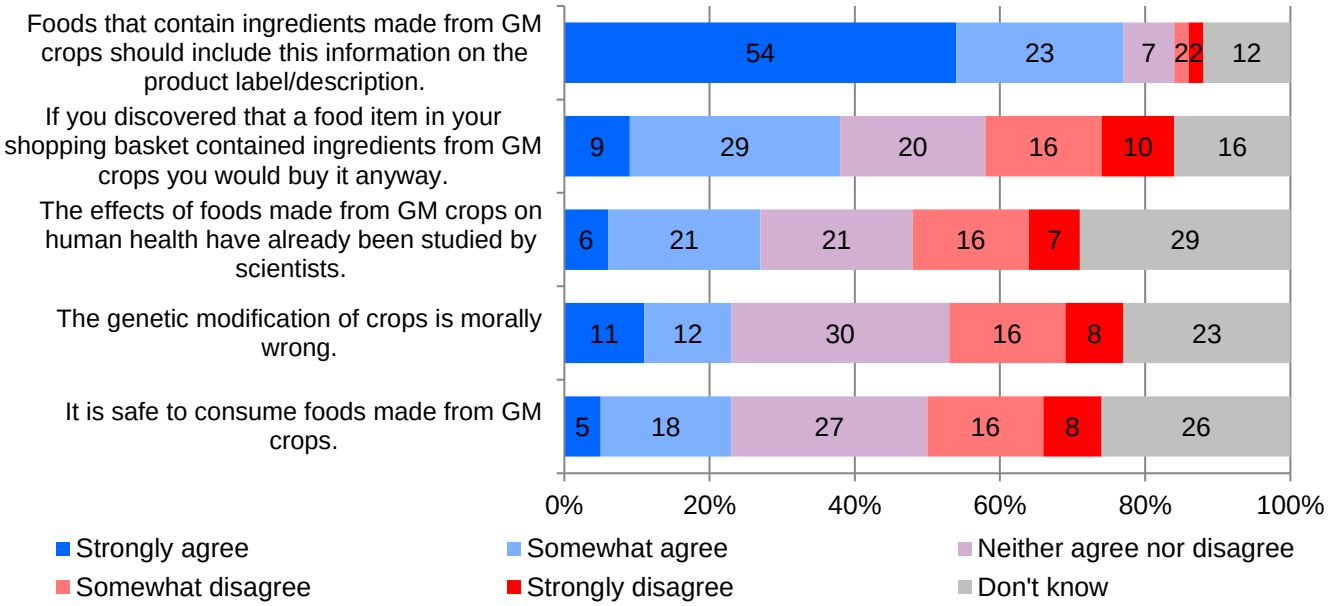
On the effects of foods made from GM crops on human health the Czech public appears to be somewhat divided. More than one-quarter (27%) agree with the statement that scientists already know the effects of foods made from GM crops on human health, while just short of one-quarter disagree and believe that the effects are not yet known. Just over one-fifth (21%) of respondents lie somewhere between these two sides and as their response said they 'neither agree, nor disagree' with the statement that scientists already know the effects of foods made from GM crops on human health. The largest share of respondents, however, did not have a clear opinion on this and selected 'don't know' as their response.

The Czech public's opinion on the statement that the 'genetic modification of crops' is 'morally unacceptable' is not clear-cut, as a comparable almost one-quarter share of the public agree (23%) and disagree (24%) with this statement. Another three-tenths (30%) of people fall somewhere in the middle between agreeing and disagreeing. The remaining just under one-quarter (23%) of respondents do not know whether they agree or disagree and selected 'don't know' as their response.

[4] Question wording: 'When you are shopping, how often do you check food labels or descriptions to see whether they contain genetically modified ingredients from genetically modified crops?' Response options: Always, often, rarely, never.

Consuming food made from GM crops is believed to be safe by just under one-quarter (23%) of respondents, while roughly the same share (24%) are of the opposite view and believe it is not safe. Approximately the same share (27%) of the Czech public do not have a strong opinion either way about the safety of consuming foods made from GM crops and chose 'neither agree, nor disagree' with this statement as their response. At more than one-quarter there are also a significant share of respondents (26%) who do not know whether the consumption of foods made from GM crops can be deemed safe or not.

Figure 5: Statements about genetically modified crops (%)[5]



Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, 'Food', 10 – 26 July 2021, 884 respondents over the age of 15, face-face interviews.

The cross-time comparison presented in Table 1 reveals that compared to the survey in April 2019 there has an increase of 5 percentage points in the share of people who agree that the product labels and descriptions of foods that contain ingredients made from GM crops should include this information, while the share of people without a clear opinion on this decreased (by 6 percentage points) and this value returned to the level observed in 2016 and 2017. There was an increase of 4 percentage points in the share of respondents who disagreed with the statement that they would buy a product even if they discovered that it contains ingredients made from GM crops, while those who said they 'neither agree nor disagree' with the statement decreased (by 4 percentage points), and the current figures returned to the level observed in 2017. The share of people who said they agree that the genetic modification of organisms is morally wrong decreased between 2019 and 2021 (by 7 percentage points) while those who said they disagree with the statement grew (by 5 percentage points). The Czech public's opinion on the statements that the effects of foods made from GM crops on human health have already been studied by scientists and that the consumption of foods made from GM crops is safe has been relatively stable since 2016 and has remained divided, as approximately one-quarter of people agree with these statements, one quarter disagree, one quarter neither agree nor disagree, and the final one-quarter 'don't know'.

[5] Question wording: 'Genetically modified foods is the term applied, for example, to fruits and vegetables that have been modified to make them more resistant to disease, to make them grow faster, and so that they look flawless. To what extent do you agree or disagree with the following statements? a) It is safe to consume food from GM crops; b) The effects of foods made from GM crops on human health have already been studied by scientists; c) If you discovered that a food item in your shopping basket that contained ingredients made from GM crops you would buy it anyway; d) Foods that contain ingredients made from genetically modified crops should include this information on the label or in the description of the product; e) The genetic modification of crops is morally wrong.' Response options: strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, strongly disagree.

Table 1: Statements about genetically modified crops – a cross-time comparison (%)

	VI/2016	VI/2017	IV/2019	VII/2021
Foods that contain ingredients made from genetically modified crops should include this information on the label or in the description of the product.	78/9/3	77/11/3	72/13/2	**77/7**/4
If you discovered that a food item in your shopping basket that contained ingredients made from GM crops you would buy it anyway.	33/22/26	40/19/25	35/24/22	38/**20/26**
The effects of foods made from GM crops on human health have already been studied by scientists.	23/24/25	27/24/23	26/24/20	27/21/23
The genetic modification of crops is morally wrong.	-/-/-	-/-/-	30/27/19	**23**/30/**24**
It is safe to consume foods made from GM crops.	21/27/26	25/25/27	22/26/25	23/27/24

Note: The table contains the sum responses that agreed with the statements ('definitely agee' and 'somewhat agree') / neither agree nor disagree / and the sum of responses that disagree ('somewhat disagree' and 'definitely disagree'). The difference between each such sum and 100% is made up of 'don't know' responses. The statements are items are listed from the ones with the most to the least agreement with the given statement in the current survey.

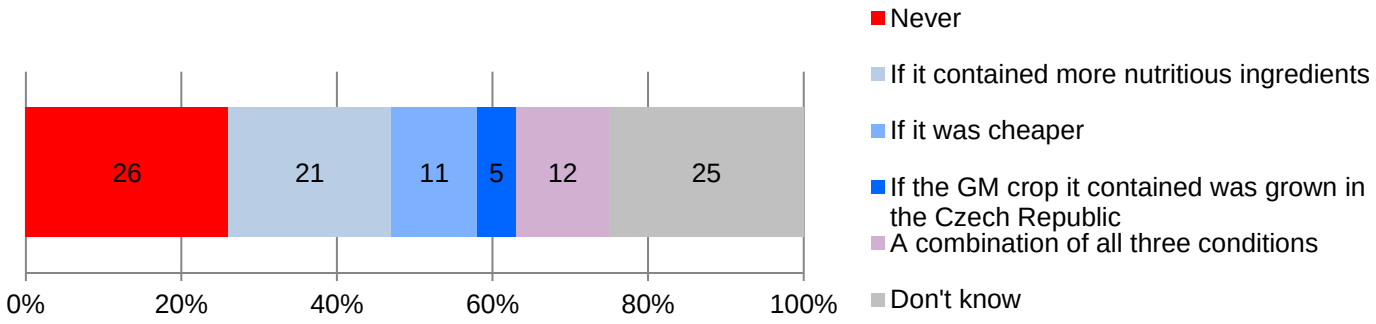
From 2016 to 2019 the term used in the wording of the questions was 'genetically modified foods'.

Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, *Our Society*, 'Food'.

We also asked all the respondents several questions about whether they would be willing to eat foods or products made from GM crops, about the effects of foods and products made from GM crops on human health, DNA, nature, and plant and animal species, and about several aspects of using GM crops.

Figure 6 below presents the results of answers to the question as to whether respondents would in certain circumstances favour foods made from GM crops over regular food products. More than one-quarter (26%) of respondents indicated that they would never choose foods made from GM crops over ordinary food. Approximately one-fifth (21%) would choose foods made from GM crops over regular food if the food contained healthier ingredients, 11% would if the food was less expensive, and one-twentieth (5%) would if the genetically modified crop it was made from was grown in the Czech Republic. Just over one-tenth (12%) of respondents would choose a food made from GM crops only if it met all three of these conditions – that is, if it contained more nutritious ingredients, was cheaper, and was grown in the Czech Republic. A large share, one-quarter (25%) of respondents, said they 'don't know'.

Figure 6: Under what circumstances would you choose foods made from GM crops over ordinary foods? (%)[6]

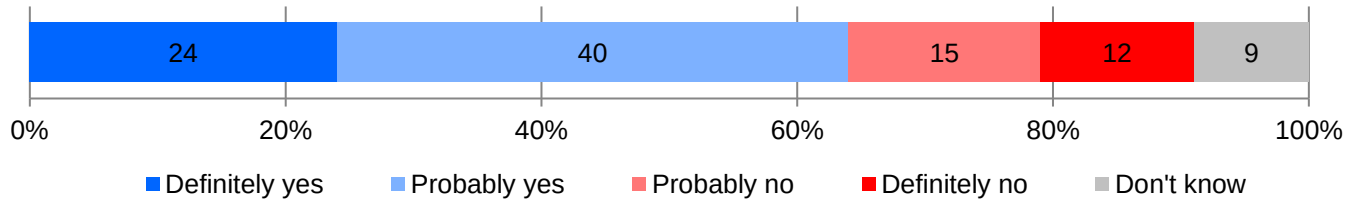


Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, 'Food', 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

[6] Question wording: 'If you had to choose between a regular food product and product made from genetically modified crops, under what circumstances would you be willing to buy the product made from genetically modified crops?' Response options: never; if it contained healthier ingredients than ordinary food; if it was cheaper; if the genetically modified crop it contained was grown in the Czech Republic; if it met all three of these conditions.

Almost two-thirds (64%) of respondents said that if they were given the opportunity to taste an approved and tested food product made from GM crops, they would take advantage of the offer and would try the food made from GM crops – 24% said they would 'definitely' try it and 40% said they 'probably' would. Just over one-quarter (27%) of respondents had the opposite view, with 15% saying they would 'probably not' try the food and 12% saying they would 'definitely not' try it. The remaining 9% of respondents were unable to answer and selected the response 'don't know'.

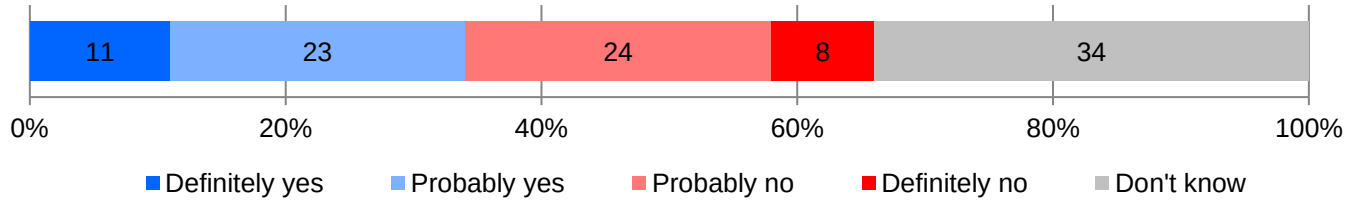
Figure 7: Willingness to taste an approved and tested food made from GM crops (%)[7]



Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, 'Food', 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

We were also interested in respondents' opinions on the effects of foods made from GM crops on human health. We can see in Figure 8 that the Czech public's opinion is divided on this question, as approximately one-third (34%) of respondents believe that foods made from GM crops could present a risk to human health (11% 'definitely', 23% 'probably'), and a comparable share (32%) hold the opposite view that foods made from GM crops are not a risk to human health (8% 'definitely no', 24% 'probably no'), and another one-third (34%) do not have a clear opinion on this ('don't know').

Figure 8: Are foods made from GM crops a potential risk to human health? (in %)[8]

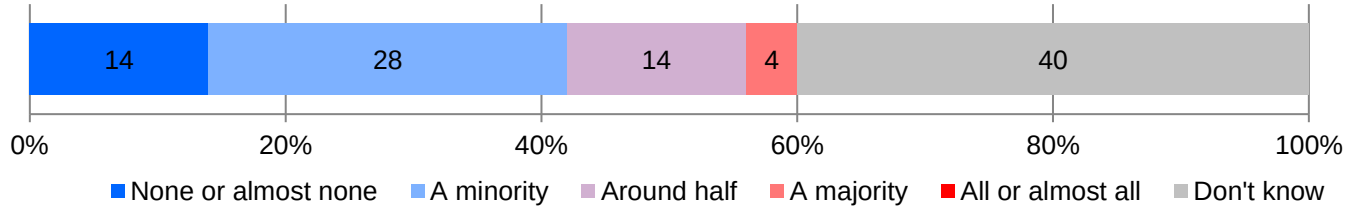


Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, 'Food', 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

Respondents were also asked to try to estimate how many of the foods that they regularly consume contain ingredients made from GM crops (see Figure 9). The results clearly show that for respondents this is a complicated issue and often they are unable to even answer the question (40%). Approximately one-seventh (14%) of respondents said that 'none or almost none' of the foods they eat contain ingredients made from GM crops, more than one-quarter (28%) said 'probably a minority', and 14% said 'probably half' of the foods they eat contain ingredients made from GM crops, while just under one-twentieth (4%) said that 'probably the majority' of the foods they regularly eat contain ingredients made from GM crops.

[7] Question wording: 'If you had a chance try an approved and tested food product made from genetically modified crops, would you try it?' Response options: definitely yes, probably yes, probably no, definitely no.
[8] Question wording: 'In your opinion, are foods made from genetically modified crops a potential risk to human health?' Response options: definitely, probably, probably no, definitely no.

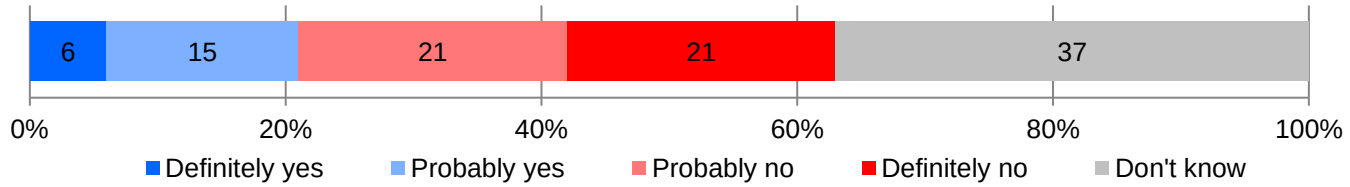
Figure 9: How many of the foods people regularly eat do they estimate contain ingredients from GM crops? (in %)[9]



Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, 'Food', 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

In another question respondents were asked whether they thought consuming foods made from GM crops could alter human DNA. Figure 10 shows the results. This again was a difficult question for respondents to answer, as almost two-fifths (37%) were unable to offer a certain opinion and selected 'don't know' as their response. Among the remaining respondents, most thought that consuming foods made from GM crops do not affect human DNA (42%) rather than that they do (21%).

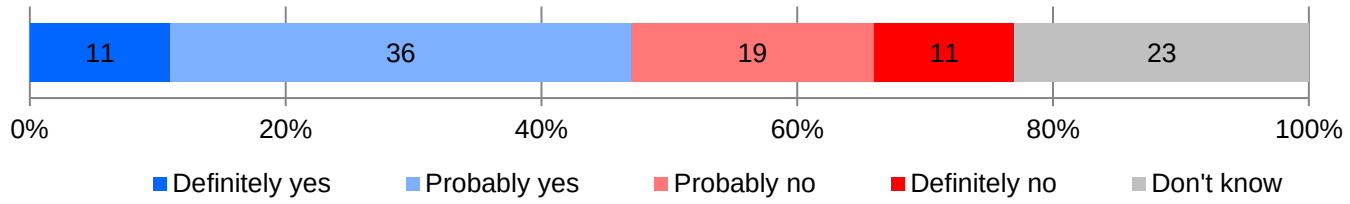
Figure 10: Can consuming foods made from GM crops alter human DNA? (in %)[10]



Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, 'Food', 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

We also asked respondents whether they would be willing to take medicine made with the help of genetically modified organisms (see Figure 11). Almost one-half (47%) of respondents agreed and said that they would (11% 'definitely yes', 36% 'probably yes'). Three-tenths (30%) of respondents disagreed and said they would not be willing to use a medicine made using genetically modified organisms (19% 'probably no', 11% 'definitely no'). The remaining almost one-quarter (23 %) of respondents had no clear opinion and chose to answer 'don't know'.

Figure 11: Willingness to take medicine made with the aid of genetically modified organisms (in %)[11]

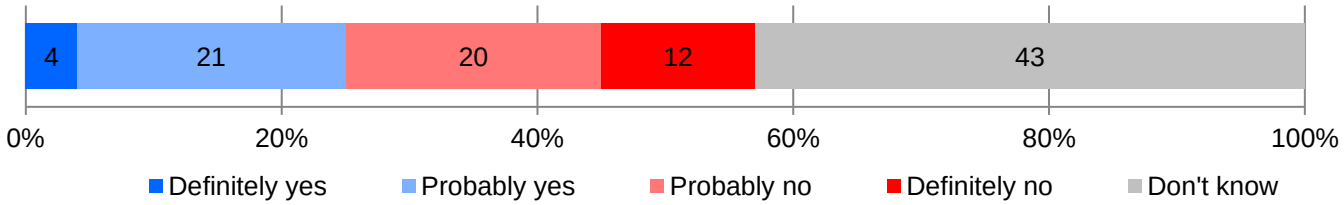


Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, 'Food', 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

[9] Question wording: 'How many of the foods that you regularly consume do you think contain ingredients from GM crops?' Response options: none or almost none, probably the minority, probably half, probably the majority, all or almost all.
[10] Question wording: 'In your opinion, can consuming foods made from genetically modified crops alter your DNA?' Response options: definitely yes, probably yes, probably no, definitely no.
[11] Question wording: 'Would you be willing to take medicine made with the aid of genetically modified organisms?' Response options: definitely yes, probably yes, probably no, definitely no.

On the question of the environmental impact of cultivating GM crops, one-quarter (25%) of respondents said they believe that the cultivation of GM crops is better for the environment, while approximately one-third (32%) of respondents had the opposite view. The largest share of respondents, more than two-thirds (43%), had no clear opinion on this issue, however, or answered ‘don’t know’.

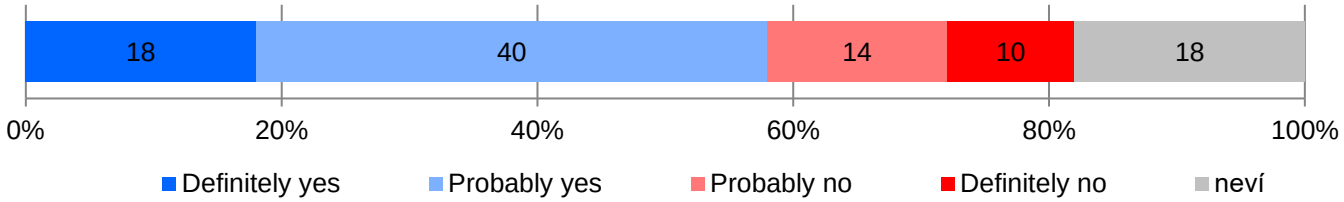
Figure 12: Is the cultivation of GM crops better for the environment? (in %)[12]



Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, ‘Food’, 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

If respondents had the chance to buy a T-shirt made from environmentally friendly genetically modified cotton (see Figure 13), almost three-fifths (58%) of respondents said they would take advantage of this opportunity and would buy the T-shirt (18% of them said they would ‘definitely’ and 40% said they ‘probably’ would), while just under one-quarter (24%) of respondents said, on the contrary, that they would not buy a T-shirt produced this way (10% of them said they would ‘definitely’ buy it and 14% that they would ‘probably’ not buy it). Just under one-twentieth (18%) of respondents said that at present they ‘don’t know’ what they would do if they had this opportunity.

Figure 13: Would you buy a T-shirt made from an environmentally friendly form of genetically modified cotton? (in %)[13]

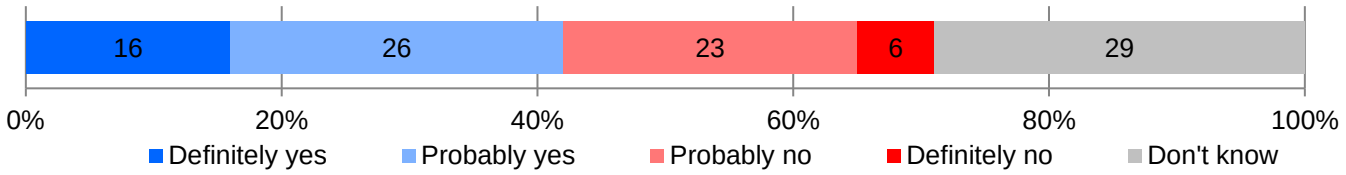


Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, ‘Food’, 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

Another question asked respondents for their opinion on whether the cultivation of GM crops is harmful to native plant and animal species. Figure 14 shows that more than two-fifths (42%) of respondents think that growing GM crops is harmful to native plant and animal species – 16% of them said that it is ‘definitely’ and 26% that it is ‘probably’ harmful. Just under three-tenths (29%) of respondents had the opposite opinion and said that growing GM crops is not harmful to native plant and animal species (6% said ‘definitely not’ harmful’ and 23% that it is ‘probably not’ harmful), and 29% of respondents had no clear opinion and selected ‘don’t know’ as their response.

[12] Question wording: ‘In your opinion, is the cultivation of genetically modified crops better for the environment or not?’ Response options: definitely yes, probably yes, probably no, definitely no.
[13] Question wording: ‘Would you buy a T-shirt made from genetically modified cotton that is environmentally friendly?’ Response options: definitely yes, probably yes, probably no, definitely no.

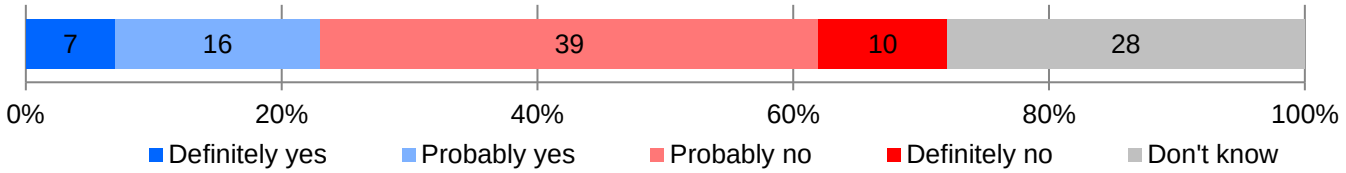
Figure 14: Is the cultivation of GM crops harmful to native plant and animal species? (in %)[14]



Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, 'Food', 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

The next question has to do with the outlook for the future. We asked respondents whether they think that in the future humankind will be able to survive without GM crops. The results (see Figure 15) are relatively unequivocal, as almost one-half (49%) of respondents believe that in the future humankind will not be able to survive without GM crops, and of them 10% said 'definitely no' and 39% said 'probably' no. Just under one-quarter (23%) tend to believe that humankind will not be dependent on GM crops in the future, with 16% saying that humankind will 'probably' get by without GM crops and 7% that humanity will 'definitely' get by without GM crops. A substantial share of respondents (28%) did not have a clear opinion on this question.

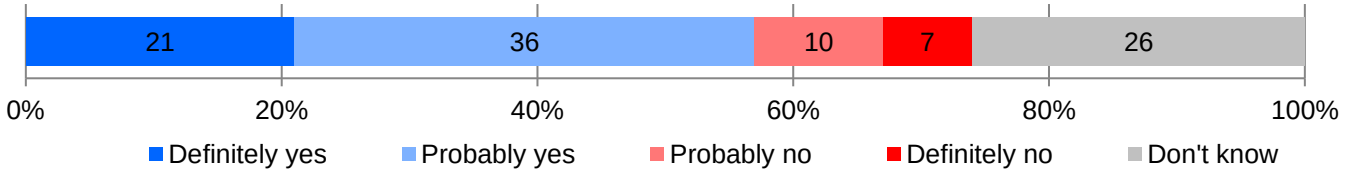
Figure 15: Will humanity be able to survive without GM crops in the future? (in %)[15]



Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, 'Food', 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

Another question in the survey focused on the ethical dimension of using GM crops. Specifically, we asked respondents whether they thought foods made from GM crops should be allowed in places where there is a shortage of food – such as poor developing countries (see Figure 16). A more than one-half majority (57%) said that food products made from GM crops should be allowed in places where there is a shortage of food, while just under one-twentieth (17%) of respondents held the opposite view. The remaining approximately one-quarter (26%) said the 'don't know' what their opinion on this should be.

Figure 16: Opinions on allowing food products made from GM crops in places where there is a shortage of food (in %)[16]

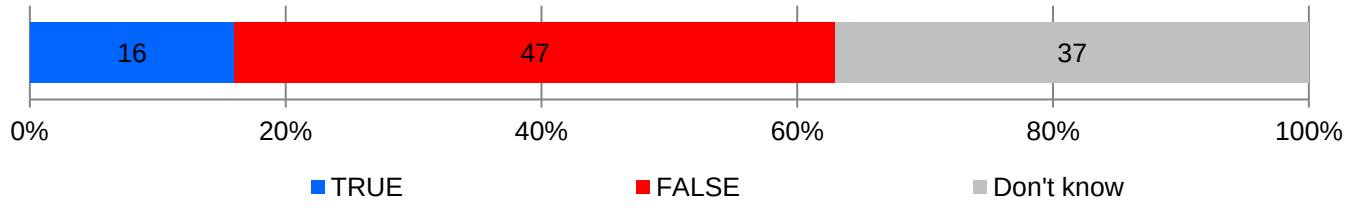


Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, 'Food', 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

[14] Question wording: 'Do you think that the cultivation of genetically modified crops is harmful to native plant and animal species?' Response options: definitely yes, probably yes, probably no, definitely no.
[15] Question wording: 'Do you think that in the future humanity will be able to survive without genetically modified crops?' Response options: definitely, probably, probably no, definitely no.
[16] Question wording: 'In your opinion, should food products made from genetically modified crops be allowed in places where there is a shortage of food – for example, in poor developing countries?' Response options: definitely yes, probably yes, probably no, definitely no.

At the end of our block of questions about GM crops we presented respondents with the following statement: ‘In the European Union, unlike most advanced states, it is basically impossible to grow any genetically modified crops’. We were interested in learning whether respondents believed this statement to be true or false. Figure 17 clearly shows that almost one-half (47%) of respondents believe this statement to be false, while approximately one-sixth believe it is true (16%), and the remaining almost two-fifths (37%) were unable to judge whether or not the statement is true and chose the response ‘don’t know’.

Figure 17: Is the following statement true or false: ‘In the European Union, unlike most advanced states, it is basically impossible to grow genetically modified crops’ (in %)[17]



Source: Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences, ‘Food’, 10–26 July 2021, 884 respondents over the age of 15, face-to-face interviews.

[17] Question wording: ‘Do you think that the following statement is true or false: ‘In the European Union, unlike most advanced states, it is basically impossible to grow genetically modified crops.’ Response options: true, false.

Technical parameters of the survey

Survey:	*Food 2021*
Implementer:	*Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences*
Project:	*Strategy AV21 'Food for the Future'*
Survey fielding dates:	*10 July – 26 July 2021*
Selection of the respondents:	*Quota sampling*
Quotas:	*Region (NUTS 3 regions), size of place of residence, sex, age, education*
Data weighting:	*Education X NUTS 2, age X NUTS 2, sex X region, size of place of residence X age, education X age*
Source data for quota sampling and data weighting:	*Czech Statistical Office*
Representativeness:	*Population of the Czech Republic aged 15 and over*
Number of respondents:	*884*
Number of interviewers:	*161*
Data collection method:	*Face-to-face interviews with respondents conducted by interviewers – combined CAPI and PAPI techniques*
Survey instrument:	*Standardised questionnaire*
Questions:	*PL.20, PL.21, PL.22, PL.23, PL.90, PL.91, PL.92. PL.93, PL.94, PL.95, PL.96, PL.97, PL.98, PL.100, PL.101, PL.102, PL.103, PL.104, PL.105, PL.106*
Report code:	*or211025*
Published on:	*25 October 2021*
Prepared by:	*Radka Hanzlová, Vojtěch Hudzieczek*

Glossary:

Quota sampling: This sampling method replicates the structure of the basic survey population (in this case the population of the Czech Republic over the age of 15) by determining the size of selected sample parameters, i.e. 'quotas'. In other words, in quota sampling the same percentages of selected characteristics in the population are reproduced in the sample. To create quotas, we use data from the Czech Statistical Office. In our surveys we set quotas for sex, age, education, region, and size of the place of residence. The sample is therefore created to ensure that the percentage shares of men and women, for example, correspond to the percentage shares of men and women in each region of the Czech Republic. Similarly, the sample reflects the different percentages of the population living in the country's different regions, and the percentage of citizens in different age categories, with different levels of education, and in different community sizes.

A representative sample is a sample of the total population whose characteristics can be validly inferred to be the characteristics of the total population. In our case this means that respondents are selected in a way that allows us to ensure that the data we obtain on them can be generalised to apply to the population of the Czech Republic over the age of 15.

Data weighting: A technique used to increase a sample's representativeness for selected population characteristics by assigning weights to each respondent. The weights are created using the method of iterative proportional fitting/weighting and are always within the range of 0.333 and 3.

The Public Opinion Research Centre (CVVM) is a research department at the Institute of Sociology, Czech Academy of Sciences. It has a history that extends back to 1946, when the Czechoslovak Institute for Public Opinion Research began operating as part of the Ministry of Information. The current centre was founded in 2001 when its predecessor (the IVVM) was transferred from the Czech Statistical Office to the Institute of Sociology of the Czech Academy of Sciences. As part of a research institution the centre has a high-quality professional work environment at its disposal and is part of an institution with a reputation of excellence. As part of an academic setting the Public Opinion Research Centre must fulfil all the requirements for and maintain the highest professional standards. The main part of the centre's work is devoted to the "Our Society" research project, which conducts ten surveys each year. This public opinion research is conducted on a representative sample of the Czech population aged 15 and over and approximately 1.000 respondents take part in each survey. The omnibus form of the questionnaire means that the survey can cover a large range of subjects, which therefore regularly includes political, economic, and other generally socially topics. The survey includes both repeat questions, which can be used to observe the development of certain phenomena over time, and questions on new topics in response to current events. The long-term continuous nature of this public opinion research project makes this scientific project unique in the Czech Republic.

'This work was supported under AV21 Strategy of the Academy of Sciences as part of the 'Food for the Future' research programme' (http://www.potravinyav21.cz/).