

CONSUMER REPORTS®

FOODS PRODUCED USING ANIMAL CELL CULTURE TECHNOLOGY

2018 Nationally Representative Phone Survey

Prepared by Survey Research Department

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INTRODUCTION

In June 2018, Consumer Reports conducted a nationally representative phone survey. The purpose of this survey was to assess attitudes towards package labeling options for food that looks and tastes like meat, but is produced using animal cell culture technology. SSRS administered the survey to a nationally representative sample of 1,018 U.S. adult residents through its Omnibus Survey. Respondents were selected by means of random-digit dialing and were interviewed via landline or cell phone. The data were statistically weighted so that respondents in the survey are demographically and geographically representative of the U.S. population.

REPORT HIGHLIGHTS

- The majority of Americans think that packages of food produced in a laboratory from animal cells to look and taste like meat should be labeled in a way that distinguishes it from regular meat.
 - About half of Americans think it can be labeled as meat as long as it is accompanied by an explanation about how it is produced
 - Four in ten Americans think it should be labeled as something other than meat
 - Only 5 percent think it should be labeled as meat without any further explanation
 - Six percent of Americans said they don't know how it should be labeled

- When Americans were presented with a list to choose what they believe would be accurate ways to identify this food product on packaging:
 - The most commonly chosen were lab-grown meat (35%) and artificial or synthetic meat (34%)
 - Less commonly chosen were cultured meat (11%), clean meat (9%), and in vitro meat (8%)

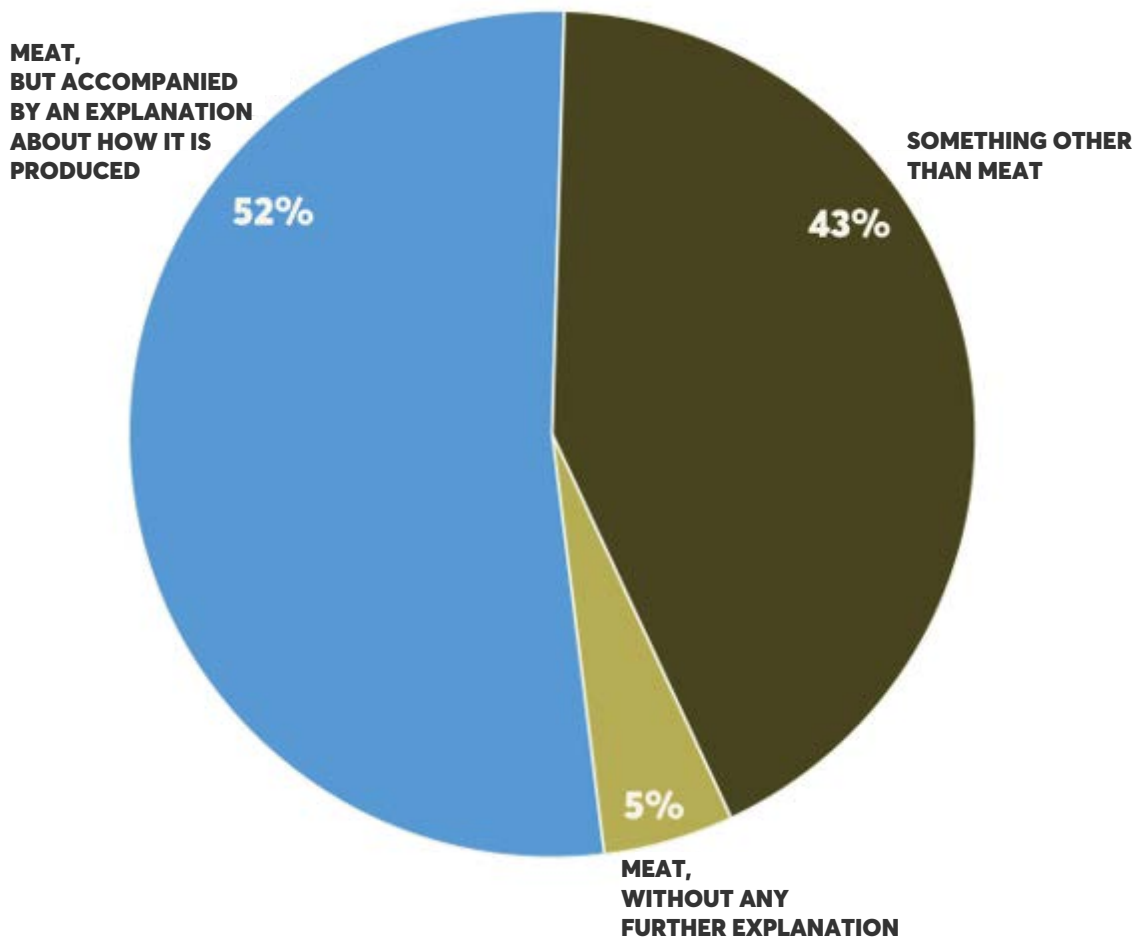
FINDINGS

This survey intended to assess both general opinions on how food produced using animal cell culture technology should be labeled, along with which specific terminology Americans feel would be accurate ways to describe this product on its packaging.

After providing respondents with a short explanation describing the food product, we asked them how they think it should be labeled. As can be seen in the graph that follows, the majority of Americans think that packages of food produced in a laboratory from animal cells to look and taste like meat should be labeled in a way that distinguishes it from regular meat. About half of Americans think it can be labeled as meat as long as it is accompanied by an explanation about how it is produced. Four in ten Americans think it should be labeled as something other than meat. Only 5 percent think it should be labeled as meat without any further explanation. Six percent of Americans said they don't know how it should be labeled.

HOW AMERICANS THINK PACKAGES SHOULD BE LABELED

If you were to see a package for purchase at a grocery store, or another location, containing food that is produced in a laboratory from animal cells to look and taste like meat, how do you think the package should be labeled?



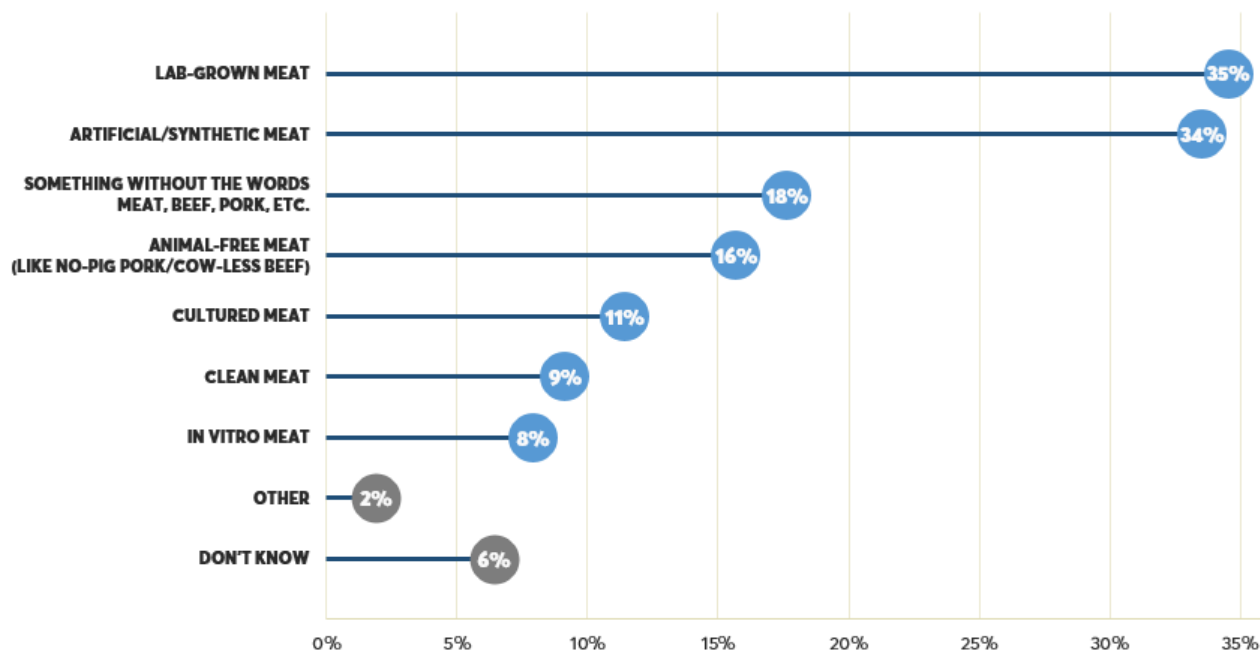
*Answer choices were rotated such that half of respondents heard them in the order "meat, without any further explanation," "meat, but accompanied by an explanation about how it is produced," "something other than meat," and half of respondents heard them in the order "something other than meat," "meat, but accompanied by an explanation about how it is produced," "meat, without any further explanation."

Base: n = 957; excludes 6% of respondents who answered 'Don't know'

In order to determine the terms that Americans think are accurate ways to identify this type of food product on its packaging, we presented them with a list from which to choose. They were able to pick up to three choices that they feel would be accurate if they saw it on a label. The graph below shows that the most commonly chosen were lab-grown meat (35%) and artificial or synthetic meat (34%). Less commonly chosen were cultured meat (11%), clean meat (9%), and in vitro meat (8%).

AMERICANS VIEWS ON PACKAGING OPTIONS

Which, if any, of the following do you believe would be an accurate way to identify this food product on its packaging?



*Respondents were able to select *up to three* responses. Answer choices were presented in a randomized order. (If 'Don't know' was chosen, respondents were not able to select additional options)

Base: All respondents, n = 1,018

As respondents could select more than one choice, we were interested in any patterns of response among groups who picked certain terms. Lab-grown meat and artificial/synthetic meat were commonly chosen as accurate ways to describe this food product, among those who selected other terms as well. For example, among those respondents who picked cultured meat, 32% also chose lab-grown meat and 21% also chose artificial/synthetic meat. Among those who picked clean meat, 26% also chose lab-grown meat, 18% also chose cultured meat, and 18% also chose artificial/synthetic meat. And, in the group who selected lab-grown meat, 29% also picked artificial/synthetic meat and 14% also picked animal-free meat.

Similarly, the chart that follows presents the percentage of respondents who selected each term as an accurate way to identify the food product on packaging, based on how individuals responded to the first question in the survey. Those who said they think it should be labeled as meat, but with an explanation of how it is produced, selected lab-grown meat most frequently, followed by artificial/synthetic meat. Cultured meat was slightly more popular in this subgroup than across all Americans. Among the group who think food produced using animal cell culture technology should be labeled as something other than meat, the term chosen most frequently was artificial/synthetic meat, which surpassed lab-grown meat. More people in this group selected "something else that does not include the word meat or beef, pork, etc." than the full nationally representative sample.

PERCENTAGE OF RESPONDENTS WHO SELECTED EACH TERM AS AN ACCURATE WAY TO IDENTIFY THE FOOD PRODUCT ON PACKAGING	Among those who selected:	
	"Meat, but accompanied by an explanation about how it is produced"	"Something other than meat"
Lab-grown meat	40	33
Artificial or synthetic meat	29	43
Animal-free meat or similar (such as no-pig pork or cow-less beef)	18	15
Cultured meat	17	6
Clean meat	11	6
In vitro meat	11	4
Something else that does NOT include the word meat or beef, pork, etc.	10	28
Other	2	1
Don't know	7	1

*Respondents were able to select **up to three** responses. Answer choices were presented in a randomized order. (If 'Don't know' was chosen, respondents were not able to select additional options)

Base: Respondents who selected "Meat, accompanied by an explanation," n = 502;
Respondents who selected "Something other than meat," n = 408

Sample size for those who selected "Meat, without any further explanation" too small to be shown.

METHODOLOGY

Questionnaire Design

Survey methodologists at Consumer Reports developed this survey, with expert input and review by food safety scientists at CR and Consumers Union. Recent publications in the field were reviewed to ensure coverage of currently accepted terminology.

Designing this survey for a nationally representative general population (that is, respondents with no special scientific training), it was essential that the language used to describe the topic to respondents be written in plain language. This is consistent with best practices in survey methodology to be at or around a 6th grade reading level. Advanced terminology that would need further explanation or a definition was avoided, except where necessary for answer choices.

Steps were taken to minimize biases created by the wording of the questions or answer choices. These include rotating scales and randomizing answer choices. For the question that asks respondents their opinion on terminology, neutral language was used to avoid immediate priming effects. And, rather than asking them to select their preferred or favorite response, respondents could select more than one answer choice (up to three) that they believe to be accurate.

Survey Instrument

Administered by a computer-assisted telephone interviewing system

Introductory text

New research and technologies have made it possible to produce food grown in a laboratory from cells derived from animals, rather than from raising and slaughtering animals. These products will have the appearance and taste of meat. However, NO animals are involved, just their cells, grown in a laboratory. These products may be available for purchase. This type of food may be labeled in different ways.

Q1

If you were to see a package for purchase at a grocery store, or another location, containing food that is produced in a laboratory from animal cells to look and taste like meat, how do you think the package should be labeled? Should it be labeled as...

SCALE ROTATED RANDOMLY

(HALF RESPONDENTS RECEIVE ORDER 01, 02, 03; HALF RESPONDENTS RECEIVE ORDER 03, 02, 01)

- 01 Meat, without any further explanation
- 02 Meat, but accompanied by an explanation about how it is produced
- 03 Something other than meat
- 98 (DO NOT READ) Don't know
- 99 (DO NOT READ) Refused

Q2

Which, if any, of the following do you believe would be an accurate way to identify this food product on its packaging?

Select UP TO THREE.

RANDOMIZE ORDER OF OPTIONS 01 - 06

- 01 Cultured meat
- 02 Clean meat
- 03 In vitro meat
- 04 Lab-grown meat
- 05 Animal-free meat or similar (such as no-pig pork or cow-less beef)
- 06 Artificial or synthetic meat
- 07 Something else that does NOT include the word meat or beef, pork, etc.
- 97 (DO NOT READ) Other (Specify)
- 98 (DO NOT READ) Don't know
- 99 (DO NOT READ) Refused

Survey Administration

This phone survey was fielded by SSRS using a nationally representative sample. The survey was conducted from June 20-24, 2018.

The SSRS Omnibus is a national, weekly, dual-frame bilingual telephone survey. Each weekly wave of the SSRS Omnibus consists of approximately 1,000 interviews, of which 600 are obtained with respondents on their cell phones, and approximately 35 interviews completed in Spanish. All SSRS Omnibus data are weighted to represent the target population. This study received 1,018 respondents. The margin of error for the sample of 1,018 is +/- 3.65% at the 95% confidence level. Smaller subgroups will have larger error margins.

Interviewing is conducted over a five-day period using a computer-assisted telephone interviewing system, with callback attempts to ensure the highest completion rate possible. Where appropriate, response answer choices are randomized. Final data is weighted by age, gender, region, race, education, and phone usage type to be proportionally representative of the U.S. adult population.

Key demographic characteristics (after weighting is applied) are presented below:

- 52% female
- Median age of 47
- 63% White, non-Hispanic
- 31% 4-year college graduates
- 47% have a household income of \$50,000 or more