



# Explaining cultivated meat to U.S. consumers

Evaluating the impacts of descriptions on consumer appeal and openness to trial and purchase, 2025

Image courtesy of Wildtype





## How strategic messaging can grow consumer understanding of and interest in cultivated meat

As cultivated meat becomes commercially available to consumers in the United States for the first time, navigating consumer education and messaging will be key for the category.

Consumer familiarity remains low. Building broad awareness of and trust in this novel food production method will require the industry to identify ways to clearly and concisely explain what cultivated meat is to consumers.

To discover which descriptions—down to specific words and phrases—are most impactful in shaping consumers' understanding of and interest in cultivated meat, GFI surveyed 3,500 U.S. consumers.



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## We asked Americans for down-to-the-word feedback on descriptions of cultivated meat, and how it affected their attitudes toward it

More than 3,500 U.S. consumers participated in a survey<sup>1</sup> where they responded to one of seven detailed descriptions of cultivated meat.

Participants answered questions before and after viewing a description of cultivated meat measuring:

- Awareness of cultivated meat
- How appealing they find cultivated meat
- Willingness to try and/or buy cultivated meat
- Understanding of what cultivated meat is

Each of the descriptions shown emphasized different combinations of words and phrases conveying what cultivated meat is, its benefits to consumers, and how it's made.

### Example description

Cultivated meat(+1%) isn't a plant-based(+5%) or processed(+3%) meat alternative(0%): it is real meat (+14%), but antibiotic-free (+19%), more-sustainable (+16%), and no animals have to be killed to make it (+25%). It's grown from cells (-33%) in a safe and controlled environment (+1%), in a food facility like the ones used to make products like beer or yogurt (-2%). The result is a nutritious product (+10%) that looks, cooks, and tastes (+10%) just like regular meat (+9%).

<sup>1</sup> Survey conducted by Morning Consult in October 2024



## Consumer metrics

**Key findings**

Image courtesy of Mosa Meat

<sup>1</sup> See page 9.

<sup>2</sup> See page 10.

<sup>3</sup> See page 18.

**Fewer than half of U.S. consumers have heard of cultivated meat.**

Prior to viewing a descriptor, those who said they had heard of cultivated meat were most likely to have heard of it as “lab-grown” (44%).<sup>1</sup> Only around one in four participants had heard of “cultivated” and/or “cultured” meat.

**Baseline appeal of cultivated meat is mixed.**

Based on what they knew going into the survey, 21% said they found cultivated meat appealing, but almost the same number (22%) said they were unsure.<sup>2</sup>

**Simple descriptors can increase appeal and purchase intent, but mostly among the undecideds.**

- After respondents read one of seven tested descriptions of cultivated meat, net appeal leapt up by 18 percentage points and purchase intent increased by 10 percentage points on average.<sup>3</sup>
- Most respondents who changed their minds about cultivated meat’s appeal after reading about it were those who were previously undecided. Only a small portion of those who initially found it unappealing changed their minds.

## Descriptors' impact on appeal

# Key findings



Image courtesy of BlueNalu

Consumers responded most **positively** to components of descriptors that articulated cultivated meat's benefits.

Top performing words and phrases clustered around those that emphasized:

- The **similarity** to conventional meat (e.g., “100% / real meat,” “looks/cooks/tastes like meat,” “same as the meat we eat today”)
- The **nutritional value** and **quality** of the product (e.g., “high-quality food,” “antibiotic-free,” “nutritious”)
- The **societal** or **environmental benefits** of the product (e.g., “no sacrifice required,” “humane/no kill,” “sustainable”)

Components of descriptors that included technical process details were most **polarizing**.

The most unappealing phrases were those that conveyed how cultivated is made and what it is via:

- **Scientific** or **technical** explanations referring to **cells** (e.g., “grown from cells,” “culturing animal cells”)
- **Visceral**-sounding language (e.g., “putting [muscle, fat, etc.] together to make meat”)

However, these phrases were effective at building **understanding**, and combined with more appealing descriptors, may still be helpful to create an overall effective message when deployed strategically.

## How to use these findings: A starting point to craft cultivated meat descriptors that build consumer interest and appeal

**Anchor on meat:** Highlighting similarity to conventional meat is compelling and widely relevant. Phrases like “**real meat,**” “**tastes just like meat,**” or “**like the meat we eat today**” were particularly effective.

**Highlight differentiating benefits:** Referencing benefits is also appealing and helps demonstrate how cultivated meat is different (even though it may taste like conventional meat). Phrases like “**no sacrifice required,**” “**high quality,**” “**antibiotic-free,**” “**no animals killed,**” and “**environmentally-friendly**” were positively received. However, the relevance and priority may differ depending on the brand or use case.

**Carefully explain the “how”:** Common ways to describe how the products are made (e.g., from cells) help with understanding but can decrease appeal. This research revealed potential tactics to counter this:

- While process-related phrases were generally polarizing, some were more so than others. Phrases like “**cultivated**” were less negative than anything referencing “cells.”
- Combining a polarizing explanatory phrase with multiple benefits can create a message that still builds appeal and understanding. Consider **framing the polarizing element between positive ones.**

- Certain phrases that cue process—like “**made in a safe, controlled environment**”—or differentiate from other products—like “**not plant-based**”—can aid understanding with minimal negative impact on appeal.
- Further research should be considered to explore process descriptors that elicit more neutral or even positive reactions.

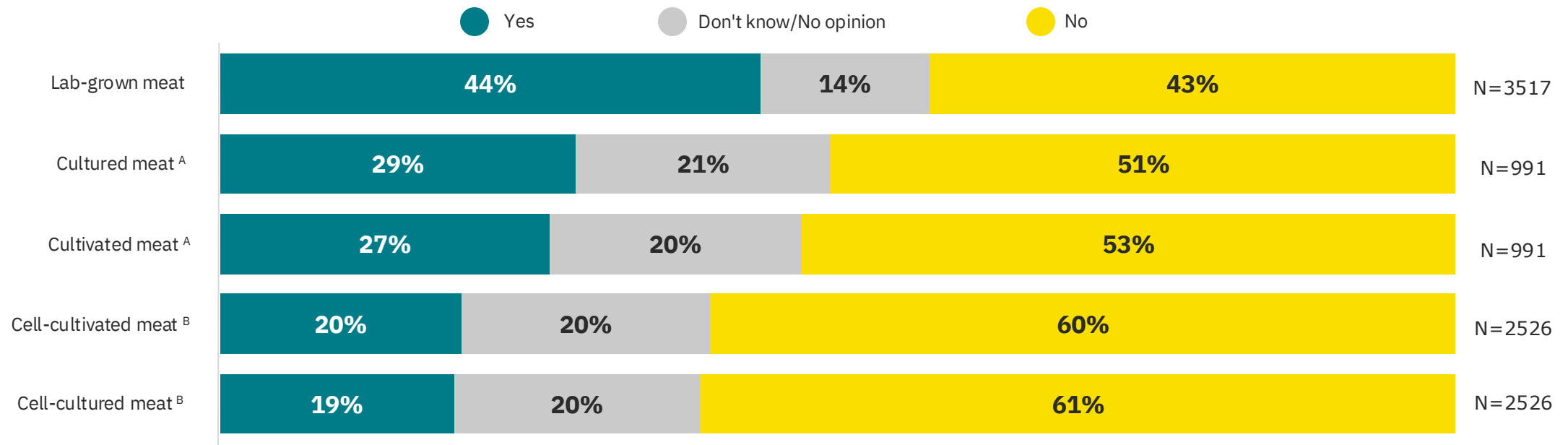
**Test and refine:** The most effective messages may vary by use case. This research provides a starting point with phrases that resonate with the general population and can be used to draft messages. Those messages should be tested/refined with target consumers.

# **Baseline consumer metrics**



## How many Americans have heard of cultivated meat, and by what names?

Few Americans have heard of cultivated meat by any name. Those who have are more likely to have heard of “lab-grown” meat than “cultivated,” “cultured,” or versions with “cell-” appended.



While U.S. consumers are more likely to have heard “lab-grown meat,” GFI continues to recommend the use of “cultivated meat” as the central industry term because our research shows that it maximizes differentiation, accuracy/descriptiveness, and appeal.

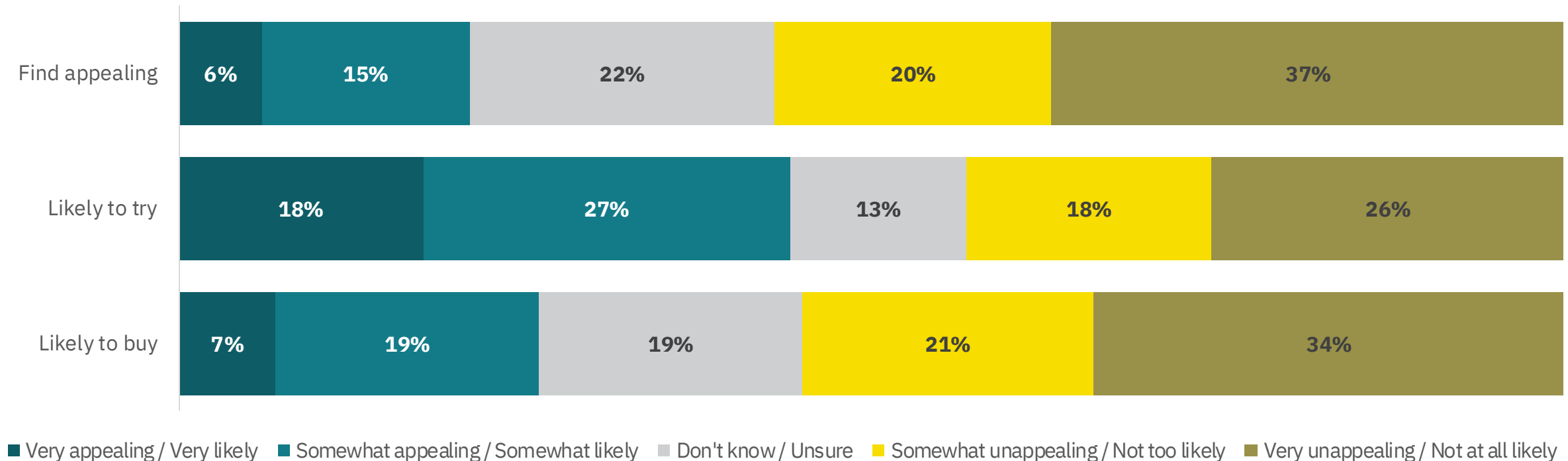
Poll by Morning Consult on behalf of GFI of n=3,517 U.S. adults, October 2024

Have you ever seen, read, or heard about each of the following?

n=991 saw ‘Cultured meat’ and ‘Cultivated meat’; n=2,526 saw ‘Cell-cultivated meat’ (B) and ‘Cell-cultured meat,’ (B); all saw “Lab-grown”

## What are Americans' attitudes toward cultivated meat?

A minority of Americans find cultivated meat appealing or would buy it based on what they know today, but almost half would try it. With an unfamiliar product like cultivated meat, consumers may express willingness to try (to determine if they like it) even if they are still unsure about its appeal.



Poll by Morning Consult on behalf of GFI of n=3,517 U.S. adults, October 2024

Based on what you know, how appealing or unappealing do you find cultivated meat? Scale = Very appealing; Somewhat appealing; Somewhat unappealing, Very unappealing; Don't know/Unsure

If you were offered a free sample of a product made with cultivated meat, how likely are you, if at all, to try it? Scale = Very likely; Somewhat likely; Not too likely; Not at all likely; Don't know/Unsure

Based on what you know, how likely are you, if at all, to purchase cultivated meat? Scale = Very likely, Somewhat likely, Not too likely, Not at all likely; Don't know/Unsure

The background is a solid teal color with a pattern of thin, white, wavy lines that flow across the frame, creating a sense of movement and depth.

# **Appeal and polarization in cultivated meat descriptors**

## What aspects of cultivated meat were most **un/appealing** on net?



### Appealing

- No sacrifice
- 100% / Real meat
- Future-friendly
- High-quality
- Same as today's meat
- Antibiotic free / Need for antibiotics
- No kill / Without harming / More-humane
- Feed more people
- Nutritious/nutritionally comparable
- Look/cook/taste like
- Reduced risk
- Grown (without specifying "from cells")\*



### Unappealing

- Grown from cells (esp. if not qualifying "directly" or "animal cells")
- Outside the animal
- From muscle/fat/tissue/etc.
- Facility like a beer brewery
- Culturing
- Put together
- Bioreactor/cultivator
- Slaughter (even in context of "not slaughtered," and in contrast to "no kill")

Poll by Morning Consult on behalf of GFI of n=3,517 U.S. adults, October 2024.

Now we'd like you to read the following description of cultivated meat. Please take your time and read through the entire passage, and use the tool provided to highlight the words or phrases you find most or least appealing

\*this phrase was immediately followed by references to fat/muscle/etc. that were rated as unappealing

## What aspects of cultivated meat were **highly appealing** on net?

Descriptions of cultivated meat as “real” (and especially “100% real”), how it can be made without antibiotics, and its ethical benefits for animals and the environment were rated as highly appealing.

Concept	Phrase	Net appeal
Sacrifice	No sacrifice required	29
100% real	100% real meat	28
Future	Future-friendly way to grow food	20
Quality	High-quality food	20
Same as	Same as the meat we eat today	19
Antibiotic-free	Antibiotic-free / Need for antibiotics	19
Humane/no kill	More humane / Without killing animals / No animals have to be killed	16
Sustainable/environment-friendly	Environmentally-friendly / Better for the environment / Sustainable	15
Real	Real meat (not specifying “100%”)	15
Food security	Help us feed more people	14
Predictable	Make in a predictable way...	12
Nutritious (not specifying “same”)	Nutritious / Nutritionally comparable to...	11
Grow (without referencing cells)	Grown (without referencing “cells”)	11

Poll by Morning Consult on behalf of GFI of n=3,517 U.S. adults, October 2024. Each phrase tested as part of a description comprised of 8-23 phrases. Sample n=462-488 per descriptor, each saw 1 of 6.

Now we'd like you to read the following description of cultivated meat. Please take your time and read through the entire passage, and use the tool provided to highlight the words or phrases you find most or least appealing.

Avg. appeal = average of number of respondents who rated each phrase as appealing, minus number who rated unappealing, across 1-6 messages where a similar or identical phrase occurred, weighted by message audience and demographics



## What aspects of cultivated meat were **moderately appealing** on net?

Other framings of health and ethical benefits were still rated as appealing, but less so. Explaining that cultivated meat is different from plant-based meat was moderately appealing, but not necessary for comprehension (see “[Effects of descriptors...](#)”).

Concept	Phrase	Net appeal
Looks, cooks, tastes like	Looks, cooks, and tastes just like...	10
Illness/disease	Reduced risk of illness/disease	9
Just like	Just like the meat you/we...	9
Safe	Safe/made in a safe environment	9
Vitamins (in medium)	Fed...broth made from...vitamins	9
Identical	Identical to the meat we...	8
Nutrient medium	Nutrient-rich broth	8
Land	Requires less land	7
Not plant-based	Isn't (a) plant-based...	6
No animals	Rather than raising whole chickens, pigs...	6

Poll by Morning Consult on behalf of GFI of n=3,517 U.S. adults, October 2024

Each phrase tested as part of a description comprised of 8-23 phrases. Sample n=462-488 per descriptor, each saw 1 of 6.

Now we'd like you to read the following description of cultivated meat. Please take your time and read through the entire passage, and use the tool provided to highlight the words or phrases you find most or least appealing.

Avg. appeal = average of number of respondents who rated each phrase as appealing, minus number who rated unappealing, across 1-6 messages where a similar or identical phrase occurred, weighted by message audience and demographics

## What aspects of cultivated meat were **not significantly un/appealing on net?**

Many more-technical descriptors of how cultivated meat is made had weak or neutral effects on appeal. Americans found depictions of growth media as a “broth” moderately appealing, but other technical descriptions neutral or unappealing.

Concept	Phrase	Net appeal
Carbohydrates (in medium)	Fed...broth made from...carbohydrates	5
Minerals (in medium)	Fed...broth made from...minerals	5
Amino acids (in medium)	Fed...broth made from...amino acids	4
Same nutrients	Same nutrients animals need to grow	4
Meat lovers	For meat lovers	4
Not processed	Isn't a processed meat alternative	3
Protein demand	Meet the growing global demand for protein	3
Factory-farmed	Difference between...and conventional factory farmed meat	1
Brewed	Food facility like...beer or yogurt	0
Fat	Fed...broth made from...fats	0
Animal names	From a chicken, pig, cow...	-1
Lip-smacking	Lip-smacking meat	-1
Indistinguishable	Indistinguishable from the...	-2
Cultivated	Cultivated	-2
Animal parts	Just the parts of the animal we need	-3
Slaughtered animals	Slaughtered farm animal	-3
Cultivator	Bioreactor/cultivator	-5

Poll by Morning Consult on behalf of GFI of n=3,517 U.S. adults, October 2024. Each phrase tested as part of a description comprised of 8-23 phrases. Sample n=462-488 per descriptor, each saw 1 of 6.

Now we'd like you to read the following description of cultivated meat. Please take your time and read through the entire passage, and use the tool provided to highlight the words or phrases you find most or least appealing.

Avg. appeal = average of number of respondents who rated each phrase as appealing, minus number who rated unappealing, across 1-6 messages where a similar or identical phrase occurred, weighted by message audience and demographics

## What aspects of cultivated meat were **unappealing** on net?

Americans found references to growing cells outside of animals, visceral descriptions of tissue, and a specific reference to facilities looking like beer breweries unappealing.

Concept	Phrase	Net appeal
Put together	Putting it [muscle, fat, etc.] together to make meat	-8
Culture	Culturing animal cells	-9
References to tissue types	Muscle/fat/connective/meat tissue	-11
Brewery	Facility that looks like a beer brewery	-17
Outside animal	Grown...outside the animal	-18
Grown <i>directly</i> from cells	Grown directly from (animal) cells	-20
Grown from cells	Grown from cells (without adding “directly”)	-27

Poll by Morning Consult on behalf of GFI of n=3,517 U.S. adults, October 2024. Each phrase tested as part of a description comprised of 8-23 phrases. Sample n=462-488 per descriptor, each saw 1 of 6.

Now we'd like you to read the following description of cultivated meat. Please take your time and read through the entire passage, and use the tool provided to highlight the words or phrases you find most or least appealing.

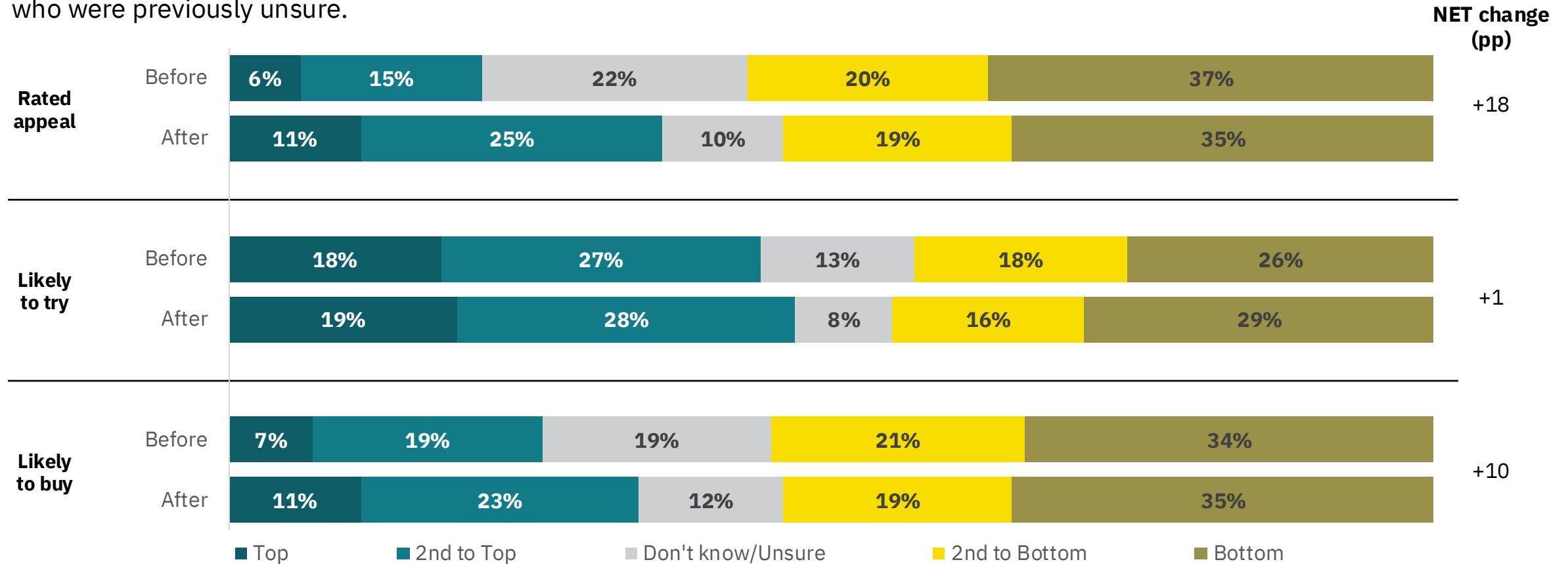
Avg. appeal = average of number of respondents who rated each phrase as appealing, minus number who rated unappealing, across 1-6 messages where a similar or identical phrase occurred, weighted by message audience and demographics

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# **Effects of descriptors on consumer metrics**

## How did learning about cultivated meat affect Americans' opinions & outlook?

Both rated appeal and likelihood to purchase increased on net. Most of the increase in appeal came from those who were previously unsure.



Poll by Morning Consult on behalf of GFI of n=3,517 U.S. adults, October 2024

Appeal: Based on what you know, how appealing or unappealing do you find cultivated meat? Scale = Very appealing; Somewhat appealing; Somewhat unappealing; Very unappealing; Don't know/Unsure

Trial: If you were offered a free sample of a product made with cultivated meat, how likely are you, if at all, to try it? Scale = Very likely; Somewhat likely; Not too likely; Not at all likely; Don't know/Unsure; Before sums to 102 due to rounding

Purchase: Based on what you know, how likely are you, if at all, to purchase cultivated meat? Scale = Very likely; Somewhat likely; Not too likely; Not at all likely; Don't know/Unsure



# How did learning about cultivated meat affect Americans' understanding of it?

Different messages conveyed different meanings in terms of what cultivated meat is and what benefits it can deliver.

		TESTED MESSAGES							
		Total	A	B	C	D	E	F	G
Sample:		3517	494	456	477	472	468	478	481
Real meat	Is grown directly from animal cells	70%	67%	75% <sup>ae</sup>	73%	72%	67%	70%	76% <sup>ae</sup>
	Looks like animal meat	56%	61% <sup>bc</sup>	54%	48%	60% <sup>c</sup>	59% <sup>c</sup>	55%	58% <sup>c</sup>
	Tastes like animal meat	53%	61% <sup>bcg</sup>	53% <sup>c</sup>	45%	58% <sup>c</sup>	55% <sup>c</sup>	55% <sup>c</sup>	53% <sup>c</sup>
	Cooks the same as animal meat	50%	60% <sup>bcdefg</sup>	51% <sup>c</sup>	42%	52% <sup>c</sup>	50% <sup>c</sup>	45%	51% <sup>c</sup>
	Is real meat	48%	50% <sup>c</sup>	45%	38%	56% <sup>bcd</sup>	48% <sup>c</sup>	52% <sup>c</sup>	52% <sup>bc</sup>
Safety/nutrition	Is safe to eat	55%	61% <sup>bc</sup>	53% <sup>c</sup>	45%	55% <sup>c</sup>	61% <sup>bc</sup>	56% <sup>c</sup>	62% <sup>bcd</sup>
	Has the same nutrition as animal meat	50%	54% <sup>cf</sup>	59% <sup>cdef</sup>	40%	50% <sup>c</sup>	48% <sup>c</sup>	43%	60% <sup>cdef</sup>
	Is free of antibiotics	49%	73% <sup>bcdef</sup>	41%	38%	39%	43%	40%	69% <sup>bcdef</sup>
	Is natural	39%	43% <sup>c</sup>	38% <sup>c</sup>	29%	40% <sup>c</sup>	41% <sup>c</sup>	43% <sup>c</sup>	44% <sup>c</sup>
Availability	Is sold in stores or restaurants	34%	41% <sup>bcdf</sup>	33%	30%	30%	35%	33%	37% <sup>c</sup>
Sustainability	Is environmentally-friendly	60%	65% <sup>bd</sup>	52%	59%	53%	62% <sup>bd</sup>	62% <sup>bd</sup>	73% <sup>abcdef</sup>
Artificiality	Is artificial	48%	49% <sup>d</sup>	52% <sup>dfg</sup>	51% <sup>dfg</sup>	41%	56% <sup>dfg</sup>	43%	43%
Dietary restrictions	Is suitable for vegetarians	28%	33% <sup>bcd</sup>	24%	23%	22%	27%	31% <sup>bcd</sup>	30% <sup>cd</sup>
	Is plant-based meat	25%	29% <sup>bde</sup>	21%	24%	20%	22%	25%	27% <sup>d</sup>
	Requires animals to be killed to make it	22%	17%	23%	20%	22%	29% <sup>acdf</sup>	19%	22%

Poll by Morning Consult on behalf of GFI of n=3,517 U.S. adults, October 2024. Thinking about the description you just read, do you agree or disagree with the following statements? Cultivated meat...

Superscript indicates significant difference from agreement vs. people who saw the other message noted. Statements with agreement levels statistically higher than at least 3 other statements are highlighted. Margin of Error: +/-2%

The background is a solid teal color with a pattern of thin, white, wavy lines that flow across the frame, creating a sense of movement and depth.

## **Detailed descriptors: What consumers saw**

## Descriptor A

Cultivated meat (+1%) isn't a plant-based (+5%) or processed (+3%) meat alternative (0%): it is **real meat (+14%)**, but **antibiotic-free (+19%)**, **more-sustainable (+16%)**, and **no animals have to be killed to make it (+25%)**.

It's **grown from cells (-33%)** in a safe and controlled environment (+1%), in a food facility like the ones used to make products like beer or yogurt (-2%).

The **result is a nutritious product (+10%) that looks, cooks, and tastes (+10%) just like regular meat (+9%)**.

**NET Score Scale (Most Appealing – Least Appealing)**

<i>+11% or more</i>	<i>+ 6-10%</i>	<i>+/- 5%</i>	<i>- 6-10%</i>	<i>-11% or less</i>
<i>Very appealing</i>	<i>Moderately appealing</i>	<i>Neutral</i>	<i>Moderately unappealing</i>	<i>Very unappealing</i>

Now we'd like you to read the following description of cultivated meat. Please take your time and read through the entire passage, and use the tool provided to highlight the words or phrases you find most or least appealing;  
Unweighted Sample Size (n=486)

## Descriptor B

Cultivated meat (-5%) is essentially the same as the meat we eat today (+16%), but grown directly from animal cells (-24%).

These cells are fed (-1%) a nutrient-rich broth (+8%) that includes amino acids (+4%), carbohydrates (+5%), minerals (+5%), fats (0%) and vitamins (+9%), which are the same types of nutrients animals need to grow (+4%).

The entire process takes place in a safe and controlled environment (+7%) that looks like a beer brewery (-17%).

**NET Score Scale (Most Appealing – Least Appealing)**

+11% or more	+ 6-10%	+/- 5%	- 6-10%	-11% or less
Very appealing	Moderately appealing	Neutral	Moderately unappealing	Very unappealing

## Descriptor C

Rather than raising whole chickens, pigs, or cows (+6%),  
we can grow only the meat we want to eat (-3%),  
directly from real animal cells (-19%).

At scale, it will be (+2%) a more humane (+23%) and  
future-friendly way (+20%) to grow high-quality food (+20%)  
for meat lovers everywhere (+4%).

**NET Score Scale (Most Appealing – Least Appealing)**

+11% or more	+ 6-10%	+/- 5%	- 6-10%	-11% or less
Very appealing	Moderately appealing	Neutral	Moderately unappealing	Very unappealing

Now we'd like you to read the following description of cultivated meat. Please take your time and read through the entire passage, and use the tool provided to highlight the words or phrases you find most or least appealing;  
Unweighted Sample Size (n=488)



## Descriptor D

Cultivated meat (-1%) is the same as conventional meat (+21%) but, instead of slaughtering a whole animal (+7%), we produce the meat by (-2%) growing animal cells (-19%). Cultivated meat (-5%) isn't a plant-based substitute (+6%).

Rather, it's real meat (+13%) that is indistinguishable from (-2%) meat tissue (-7%) that comes from a cow, pig or chicken (+1%).

**NET Score Scale (Most Appealing – Least Appealing)**

+11% or more	+ 6-10%	+/- 5%	- 6-10%	-11% or less
Very appealing	Moderately appealing	Neutral	Moderately unappealing	Very unappealing

Now we'd like you to read the following description of cultivated meat. Please take your time and read through the entire passage, and use the tool provided to highlight the words or phrases you find most or least appealing;  
Unweighted Sample Size (n=473)

## Descriptor E

Cultivated meat (+4%) is meat, essentially (+6%). It is identical to meat (+8%) from a slaughtered farmed animal (-3%). The main difference between cultivated meat and conventional factory farmed meat(+1%) is how it's made.

Cultivated meat means growing (+11%) muscle (-14%), fat (-12%) and connective tissue (-15%) outside of the animal (-21%), in what's called a cultivator (-5%), and then putting it together to make meat (-8%). A cultivator brews meat by culturing animal cells (-9%), just like yogurt, cheese or beer is cultured (+2%).

It's a safe (+17%), predictable (+12%), sustainable (+15%), nutritious (+13%), and humane (+16%) way to make food (+6%).

### NET Score Scale (Most Appealing – Least Appealing)

+11% or more	+ 6-10%	+/- 5%	- 6-10%	-11% or less
Very appealing	Moderately appealing	Neutral	Moderately unappealing	Very unappealing

## Descriptor F

Cultivated meat (-4%) is real (+13%), lip-smacking meat(-1%), grown from cells (-28%), outside the animal (-14%). No sacrifice required (+29%).

It's a humane approach (+14%) that produces 100% real meat (+28%), using only what the cow, pig, or chicken (-3%) contributes to the process(-3%).

**NET Score Scale (Most Appealing – Least Appealing)**

+11% or more	+ 6-10%	+/- 5%	- 6-10%	-11% or less
Very appealing	Moderately appealing	Neutral	Moderately unappealing	Very unappealing

Now we'd like you to read the following description of cultivated meat. Please take your time and read through the entire passage, and use the tool provided to highlight the words or phrases you find most or least appealing;  
Unweighted Sample Size (n=462)

## Descriptor G

Cultivated meat (-3%) is real meat (+19%) grown directly from animal cells (-18%). It is produced in a controlled and safe environment (+10%), which eliminates the need for antibiotics (+20%) and mitigates the risk of zoonotic diseases (+9%).

This process is more sustainable (+14%), requires less land (+7%), and can help us feed more people with fewer resources (+14%) compared to conventional meat production (+1%).

The end product is nutritionally comparable to traditional meat (+9%), offering a more humane (+9%) and environmentally friendly way (+13%) to meet the growing global demand for protein (+3%).

### NET Score Scale (Most Appealing – Least Appealing)

+11% or more	+ 6-10%	+/- 5%	- 6-10%	-11% or less
Very appealing	Moderately appealing	Neutral	Moderately unappealing	Very unappealing