



U.S. consumer snapshot: Precision fermentation

2025



Image courtesy of New Culture

Contents

- 1 Overview
- 2 Awareness and nomenclature
- 3 Appeal and willingness to try and buy
- 4 Perceptions and comparisons to conventional eggs & dairy
- 5 Effects of messaging and claims

The state of precision fermentation in the U.S.



Image courtesy of Perfect Day

* Major Technological Advances and Trends in Cheese

Emerging and mostly unfamiliar

While precision-fermented ingredients have been used in the U.S. for decades in products like cheese and baked goods*, few consumers are familiar with their use in animal-free dairy or egg products.

Consumers are much more likely to indicate they have heard of “animal-free dairy or eggs” than of “precision-fermented dairy or eggs.” However, measuring consumer awareness is complicated in that some likely conflate precision-fermented products with purely plant-based ones, which are more widely available and familiar to consumers.

Room to define perceptions

After reading an explanation of what precision fermentation is and how it can be used in egg and dairy products, consumers expect these products to have environmental benefits and be low in fat and cholesterol, and are intrigued that they can have other health benefits. But they are unconvinced the products can be biologically or functionally identical to conventional dairy or eggs.

Barriers to overcome

A minority of consumers are extremely or very likely to try precision-fermented dairy and eggs based on what they know today, but the number increased slightly from 2024. Those who are not open are most likely to cite concerns about the expected taste or texture or say they want to support farmers.

How did we define precision fermentation for consumers to gauge their perceptions?

“Now we will ask you a few questions about **animal-free** dairy and eggs (also known as **precision-fermented** dairy and eggs). As you may know, fermentation is used to make **foods like beer, bread, and yogurt**. We can also use a type of fermentation to convert sugars into **dairy or egg proteins** like whey or casein. These proteins are **identical to what we'd find in milk or eggs**, but made **without animals** and can be used to make **animal-free products** like ice cream, milk, eggs, protein powder, and more. Some examples include brands like Bored Cow milk and **EVERY** eggs.”



Consumer metrics for precision fermented products at a glance



Awareness

Fewer than 1 in 5 Americans have heard of precision fermentation. They are more likely to have heard of “animal-free” products, but this may reflect some conflation with plant-based dairy/eggs.



Openness

Few Americans find precision-fermented products appealing or say they would buy them based on what they know today, but more than **1 in 3** are **very or extremely likely to try**, up slightly from 2024.



Perceptions

Many Americans expect precision-fermented products to be **healthier and more sustainable** than conventional ones, but not a majority, and few expect it to be as **tasty, high protein, or natural**.



Barriers

Americans who are not open to precision-fermented products are most likely to cite **preference for conventional dairy or eggs** (42%) and expecting not to like the **taste or texture** (38%) as their top barriers.



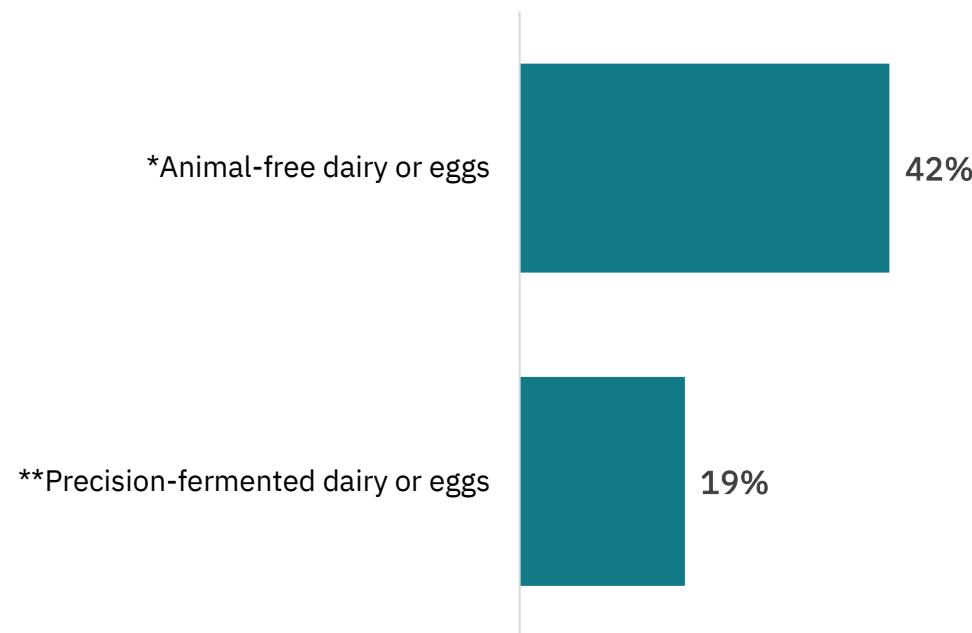
Messaging

Statements explaining that precision-fermented products are **nutritious, free from antibiotics and hormones, and how precision fermentation has long been used** as an input for food products may be effective at boosting interest.

What names for precision-fermented dairy or eggs are Americans aware of?

While 2 in 5 adults have heard of the term “animal-free dairy or eggs” (which might be conflated with plant-based products), awareness drops significantly when it comes to the more technical terminology.

Names Americans report hearing for precision-fermented dairy or eggs



Brand awareness for top selling precision fermentation-based products averages around 10%, suggesting actual category familiarity is quite low.

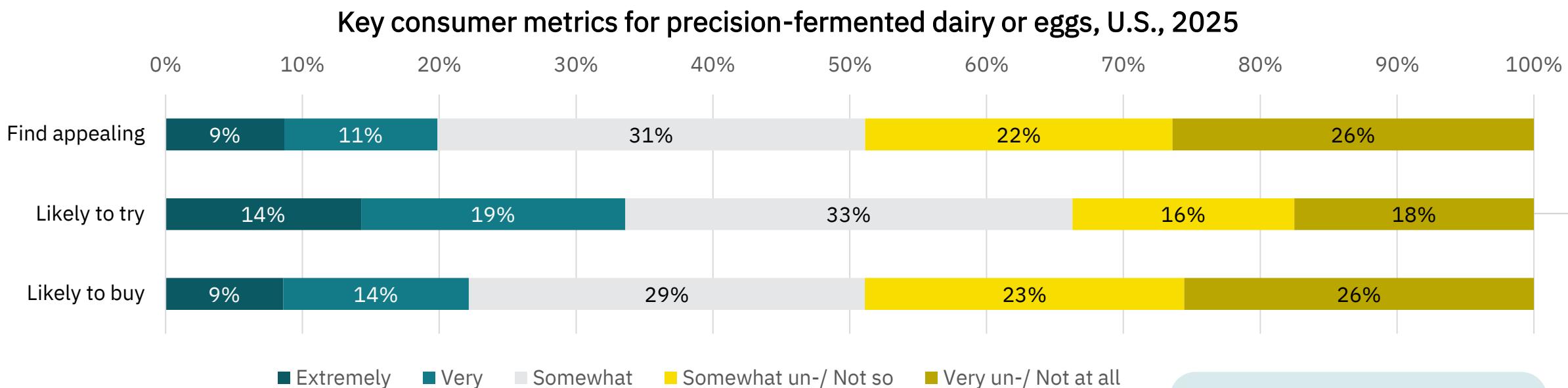
Have you ever seen, read, or heard about each of the following?

Poll by Morning Consult on behalf of GFI: n=4,204 U.S. adults, June 2025

* shown to 2,121 respondents; ** shown to 2,083 respondents

How appealing do Americans find precision-fermented dairy or eggs, and how likely are they to try and buy these products?

While a minority of Americans find precision-fermented products appealing or would buy them today, more than 2 in 3 are at least somewhat willing to try it. The portion extremely or very likely to try increased by 5 percentage points from 2024.



Based on the description provided, how appealing or unappealing do you find animal-free dairy or egg products?
 If you were offered a free sample of a product made with animal-free dairy or eggs, how likely are you, if at all, to try it?
 Based on what you know, how likely are you, if at all, to purchase animal-free dairy or eggs products?
 Poll by Morning Consult on behalf of GFI: n=1,049 U.S. adults, June 2025

Americans are **more willing to try** (29% in May 2024; 34% in June 2025) precision-fermented dairy and eggs since last year.

What demographic groups are most open to precision-fermented dairy or eggs?

Receptivity of precision-fermented dairy or eggs is higher among plant-based meat consumers, younger adults, men, and those with higher incomes.

Key precision fermentation metrics by demographic group

Demographic	% Appealing	% Likely to try	% Likely to buy
Adults	20%	34%	22%
Gender: Male	25%	38%	25%
Gender: Female	15%	30%	20%
GenZers: 1997-2012	31%	36%	30%
Millennials: 1981-1996	29%	44%	29%
GenXers: 1965-1980	19%	32%	23%
Baby boomers: 1946-1964	7%	24%	11%
Income: Under 50k	16%	28%	19%
Income: 50k-100k	21%	37%	22%
Income: 100k+	29%	44%	34%
Past-year plant-based meat consumers	38%	54%	41%

Appeal: Based on the description provided, how appealing or unappealing do you find animal-free dairy or egg products? % "Extremely" or "Very" (top 2 of 5)

Try: If you were offered a free sample of a product made with animal-free dairy or egg products, how likely would you be to try it? % "Extremely" or "Very" (top 2 of 5)

Buy: Based on what you know, how likely are you, if at all, to purchase animal-free dairy or egg products? % "Extremely" or "Very" (top 2 of 5)

Poll by Morning Consult on behalf of GFI: n=1,049 U.S. adults, June 2025. Gender n=506 - 542 ; Generation n=140 - 318; Income n=180 - 555; Past-year Plant-based Meat Consumers n=391

Green: 20+% more than average

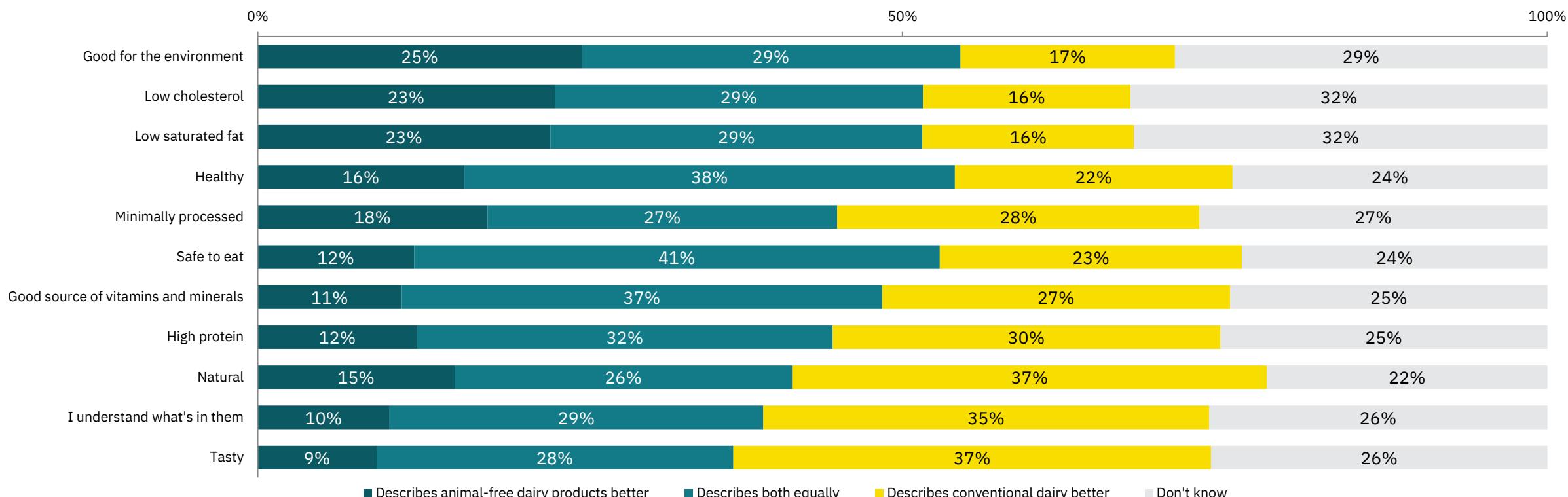
Red: 20+% less than average

Color comparison is within columns, not across rows

What benefits do Americans think precision-fermented dairy or eggs will deliver better than, the same as, or worse than conventional equivalents?

About 2 in 5 Americans believe both precision-fermented dairy and eggs and their conventional counterparts are equally safe, healthy, and good sources of vitamins and minerals, although significant minorities remain undecided.

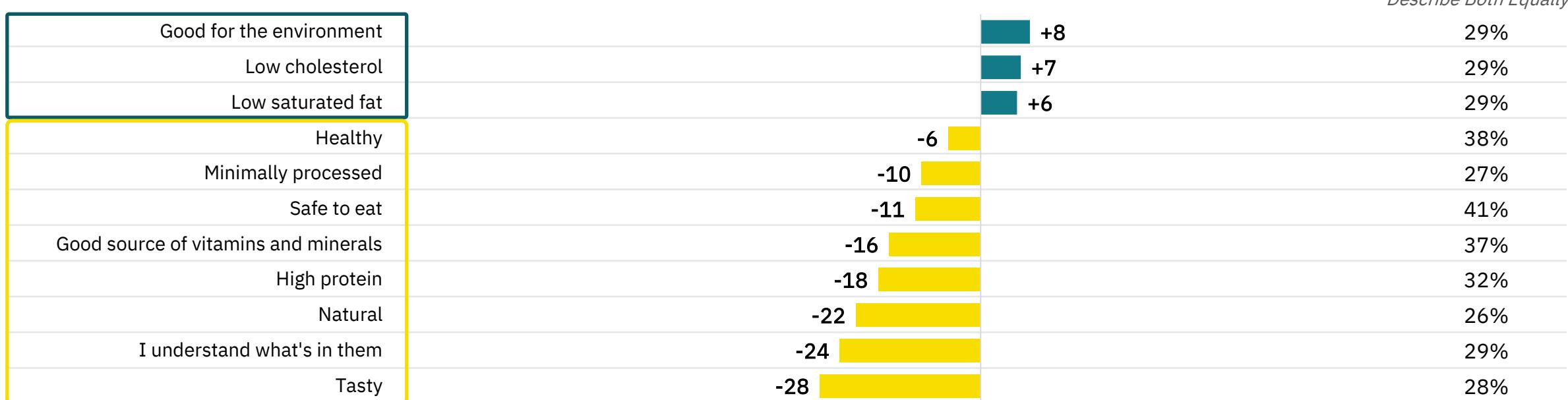
Attributes Americans think precision-fermented dairy & eggs do better or worse than conventional



How do the expected benefits of precision-fermented dairy or eggs compare to those of conventional equivalents on net?

Americans are more likely to expect precision-fermented dairy and eggs to be good for the environment and low in commonly-avoided macronutrients like saturated fat and cholesterol, but they are more likely to think conventional options are natural and tasty.

Attributes Americans think precision-fermented dairy & eggs do better (+) or worse (-) than conventional



In your opinion, do each of the following attributes describe animal-free dairy and egg products or conventional dairy and eggs better?

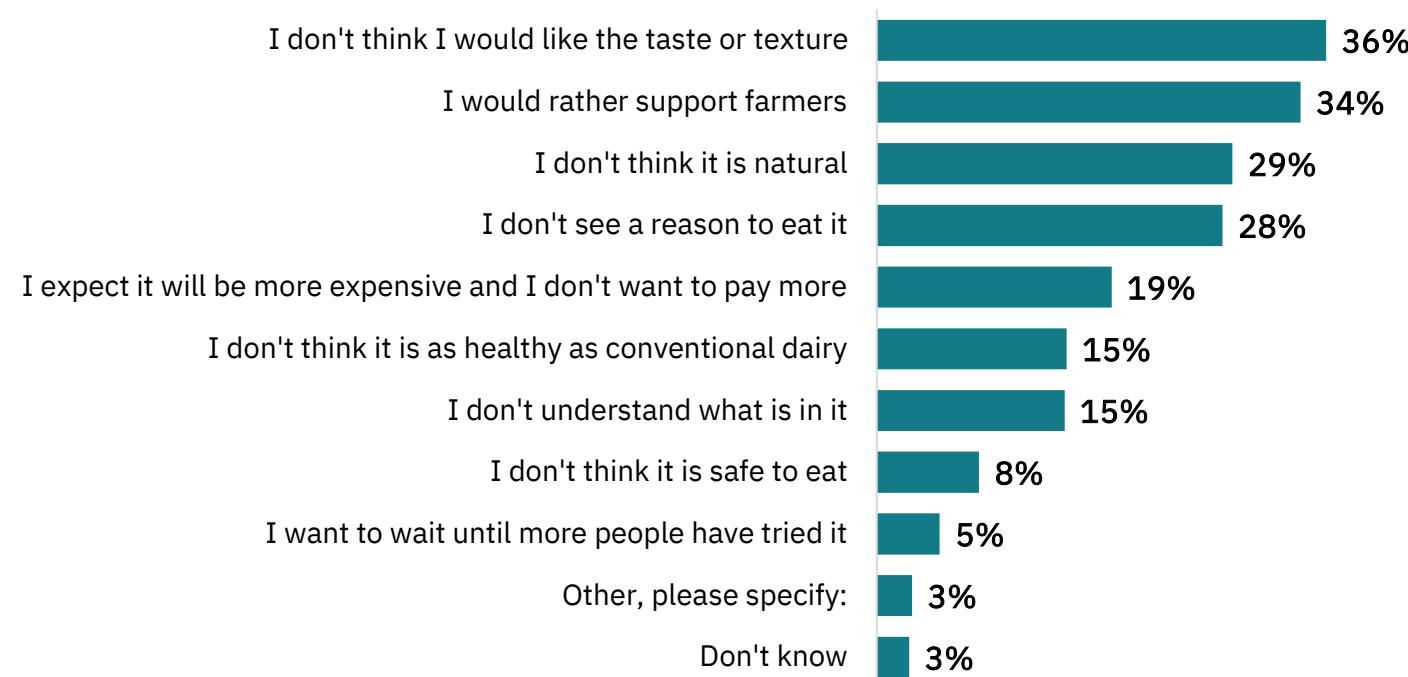
Number who think precision-fermented dairy/eggs are better minus number who think conventional are better

Poll by Morning Consult on behalf of GFI: n=1,049 U.S. adults, June 2025

For Americans who aren't open to precision-fermented dairy or eggs: what are their barriers?

Those hesitant to try or buy precision-fermented dairy or eggs have a range of objections: many have concerns about the expected taste or texture, say they want to support farmers, don't think it's natural, or simply don't see a reason.

Reasons Americans would not try/buy precision-fermented dairy or eggs



Why are you unlikely to try or buy cultivated meat? Select up to three reasons.

Poll by Morning Consult on behalf of GFI: among n=280

What claims about the potential benefits of precision-fermented products are most believable and enticing to Americans?

Americans' responses to tested claims about precision-fermented dairy & eggs

Statement	This statement is believable	This makes me want to learn more about precision-fermented dairy and egg products	This would make me more likely to try precision-fermented dairy and egg products
Dairy and eggs made from precision fermentation are free from the antibiotics and hormones that are often used in farmed animals.	55%	49%	46%
Products made from precision fermentation are more sustainable than ones from animals because they require less land and cause less carbon emissions.	51%	47%	43%
Precision fermentation sounds new, but has been used in food for decades, including the rennet used in most hard cheese made in the U.S.	51%	47%	45%
Dairy and eggs made with precision-fermentation can offer the same or even better nutrition than conventional proteins, with more protein, less fat, or fewer calories.	48%	48%	45%
Precision-fermented dairy and egg products will taste and feel just like ones from animals because they are functionally identical.	37%	45%	42%
Animal-free proteins made with precision fermentation are biologically identical to ones from animals.	37%	44%	41%

Please read the following statements about animal-free products made with precision fermentation and answer a few questions about them.

Poll by Morning Consult on behalf of GFI: n=1,049 U.S. adults, June 2025

This statement is believable = %Strongly + Somewhat agree

This makes me want to learn more about precision-fermented dairy and egg products = %Strongly + Somewhat agree

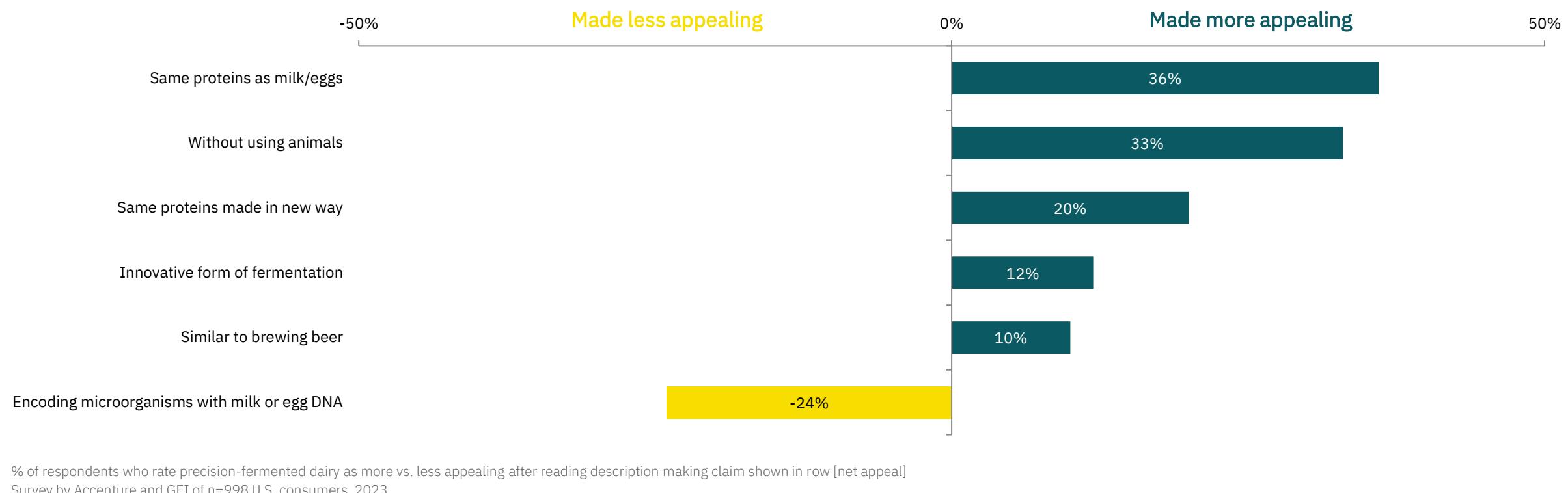
This makes me more likely to try This makes me want to learn more about precision-fermented dairy and egg products = %Strongly + Somewhat agree

Color comparison is within columns, not across rows

How does descriptive language impact consumer interest in precision-fermented dairy and eggs?

Explaining how precision fermentation offers animal proteins without the animals can boost consumer appeal. Noting comparisons to traditional fermentation can also be effective, though high-detail explanations explaining the mechanism of fermentation have not been shown to be.

Effects of descriptors for precision-fermented dairy and eggs on net appeal (more or less)



Learn more

Finding language that stimulates appeal and makes clear what precision-fermented products are, how they're made and why they're needed – and using that language consistently across the sector to cement understanding – will be essential as products continue to come to market.

To learn more about consumer preferences around nomenclature and messaging, check out GFI's resource *Nomenclature and messaging for precision fermentation: consumer research findings from France, Germany, Spain, the UK and the United States.*



Methodology

The Good Food Institute surveys thousands of diverse Americans annually to understand their outlook on alternative proteins and will continue to make the results of this research available to the public as the category evolves.

*All data from a poll by Morning Consult on behalf of GFI:
n= 1,049 U.S. adults, June 2025, unless otherwise specified.*

Acknowledgements

Authors

Taylor Leet-Otley, Senior Consumer Research Lead

Jody Kirchner, Associate Director of Market Insights

©2025 The Good Food Institute. All rights reserved.

Permission is granted, free of charge, to use this work for educational purposes.



About GFI

The Good Food Institute is a nonprofit think tank working to make the global food system better for the planet, people, and animals. Alongside scientists, businesses, and policymakers, GFI's teams focus on making plant-based and cultivated meat delicious, affordable, and accessible. Powered by philanthropy, GFI is an international network of organizations advancing alternative proteins as an essential solution needed to meet the world's climate, global health, food security, and biodiversity goals. To learn more, please visit gfi.org.

POWERED BY PHILANTHROPY

GFI is a nonprofit 501(c)3 organization.

gfi.org