Closing the Gap:

Eater & Operator Perspectives on Sustainable Dining

Year One of a Three-Year Study

A Food for Climate League report produced in collaboration with Datassential

FOOD FOR CLIMATE LEAGUE

DATASSENTIAL

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The future of foodservice is climate-smart.

In this, the first of our annual check-ins with the people who shape what we eat—the professionals planning menus and preparing the food, and the consumers ordering and enjoying it—**there's a lot of good news.**

Both eaters and foodservice operators are **enthusiastic about sustainable ways of eating,** even if they have different ideas about what that means and what food choices have the most impact.

Aligning foodservice offerings with how diners aim to eat **creates new opportunities:** To stay competitive in a changing landscape, expand eaters' appetites for climate-smart options, and strengthen the bottom line.

Why it matters for business

→ Foodservice operators are missing important opportunities to meet eaters' wants and needs.

Why it matters for the world

→ Plant-forward diets and reducing food waste are among the most powerful solutions to address climate change—more effective than solar power, refrigerant management, and electric vehicles.

Source: Project Drawdown

Behind the research

In this, the inaugural year of this three-year study, FCL and Datassential asked foodservice operators and eaters to share their perceptions, awareness, and intentions regarding sustainable dining.

Who we polled:

Datassential conducted the study in August 2024 from its OPERA panel. See "About This Study" for full respondent breakdown.

1500

consumers representative of the general US population, ages 18+

403

operators from Datassential's OPERA panel with some level of authority in making purchasing decisions for the operation

201 restaurant operators

202 on-site operators

This report also references the 2024 Plant-Forward Opportunity Report, a Datassential report produced in collaboration with the Culinary Institute of America, Food for Climate League, and the Menus of Change University Research Collaborative.

FOOD FOR CLIMATE LEAGUE

Food for Climate League is a trailblazing, women-led nonprofit with a mission to make climate-smart food choices the norm. We have deep expertise in food systems and trends, and we work from a behavioral science standpoint to provide proven solutions that connect the dots between sustainable foods and people's unique needs, values, and cultures.

DATASSENTIAL

Datassential is the leading global food and beverage intelligence platform providing guidance on trends, competitive benchmarking, and sales intelligence. Through AI-powered solutions, an intuitive UI, and proprietary data, the food and beverage ecosystem relies on Datassential to more effectively develop, market, and sell their products.

What we measured

→ How much do operators and eaters know about sustainable foods—especially the ones that make the greatest impact on the environment?

→ Do they intend to serve and/or eat more sustainable foods—and talk about them to others—in the next year?

→ And what, if anything, is stopping them from offering or ordering more sustainable foods?

How we define sustainable foods

Sustainable foods are:

Good for people, meaning foods that support farmers, food workers, and local communities

Good for the planet, meaning foods that reduce pollution, conserve natural resources, and limit greenhouse gas emissions that contribute to climate change

* **Most impactful** refers to the greatest impact in terms of environmental benefits, as assessed by Project Drawdown.

Plant-forward eating means favoring foods from plant sources and substantially reducing foods from animal sources, but not necessarily becoming vegan or vegetarian.

We asked eaters and operators about many different ways of eating sustainably, starting with the three most impactful:

- **Plants as the main protein** in a meal (e.g., beans, tofu, nuts, seeds)
- **All parts of the plant** (i.e., root-to-stem cooking)
- **Little to no meat** and animal proteins or products (e.g., using small amounts of meat, dairy, or eggs as flavoring; or using no meat, dairy, or eggs in a meal a few times a week)
- Plant-based alternatives to meat and dairy (e.g., Beyond Meat, Impossible Foods)
- Fruits and vegetables that are in-season (i.e., harvested and available during their growing season like greens and citrus in winter)
- Fruits and vegetables that are grown locally or regionally (i.e., grown within 100 miles)
- Ingredients that are regeneratively farmed (i.e., farming practices that restore the soil like composting, cover crops, and crop rotation)
- Ingredients grown and processed by workers who are treated humanely and paid fairly (e.g., Fair Trade, Food Justice Certified)
- Sustainable aquatic foods (e.g., kelp, clams, oysters, and/or mussels)

What we learned: a snapshot

Although there are many delicious ways to eat sustainably, there are key knowledge gaps.

While the vast majority of eaters and operators know at least one way to eat sustainably—like choosing locally grown or in-season foods—most lack a broader understanding of other climate-smart food choices, leaving untapped opportunities on the table.

Enthusiasm is (mostly) high, but there is misalignment.

Eaters are motivated to eat sustainably—and young people, especially, are leading the way. Foodservice operators, though motivated, have some reservations about whether diners will embrace sustainable offerings.

The table is set to close these gaps.

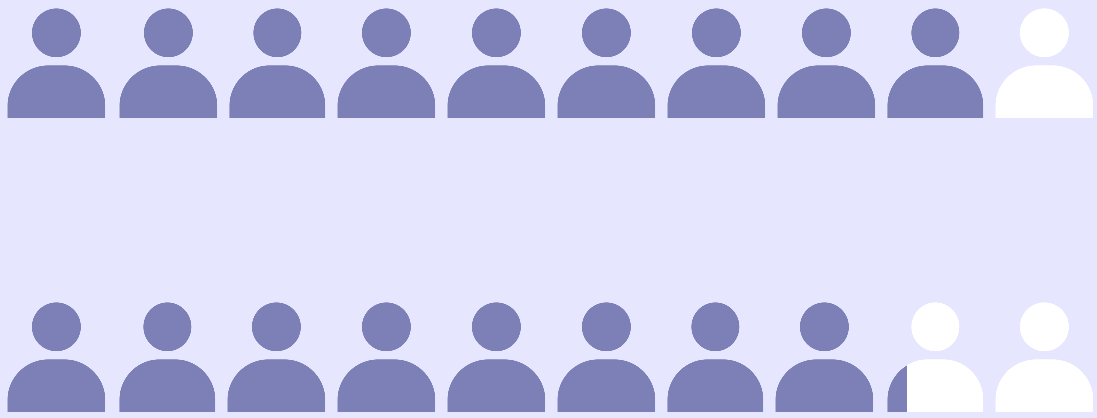
Eaters are eager to eat more sustainable foods. And operators are largely willing to offer more—even those who never have before. But many operators could use more tools in their toolkit to do so.

KNOWLEDGE

Most eaters and foodservice operators know at least some ways to eat sustainably, but both have key knowledge gaps.

Both eaters and operators feel knowledgeable about at least one way of eating sustainably.

Operators feel more knowledgeable than eaters do.



90%
of operators

83%
of eaters

feel knowledgeable about at least one way to eat sustainably.

Question: Which of the following ways of sustainable eating do you feel knowledgeable about?

But the sustainable foods that are top of mind are not the most impactful.

Both groups are, by far, **most familiar with in-season and locally sourced foods** as ways of eating sustainably. And operators, again, feel more knowledgeable about them than eaters do:

71% of operators vs **54%** of eaters feel knowledgeable about eating/using **in-season** fruits and vegetables.

69% of operators vs **52%** of eaters feel knowledgeable about eating/using **locally or regionally grown** fruits and vegetables.

Question: Which of the following ways of sustainable eating do you feel knowledgeable about?

That gap in familiarity extends to some of the highest-impact, climate-smart foods.

Eaters

34% feel knowledgeable about eating **plants as the main protein** in a meal

23% feel knowledgeable about eating **little to no meat or animal proteins** or products

22% are familiar with consuming **all parts of the plant**

Foodservice Operators

42% feel knowledgeable about using **plants as the main protein** in a meal

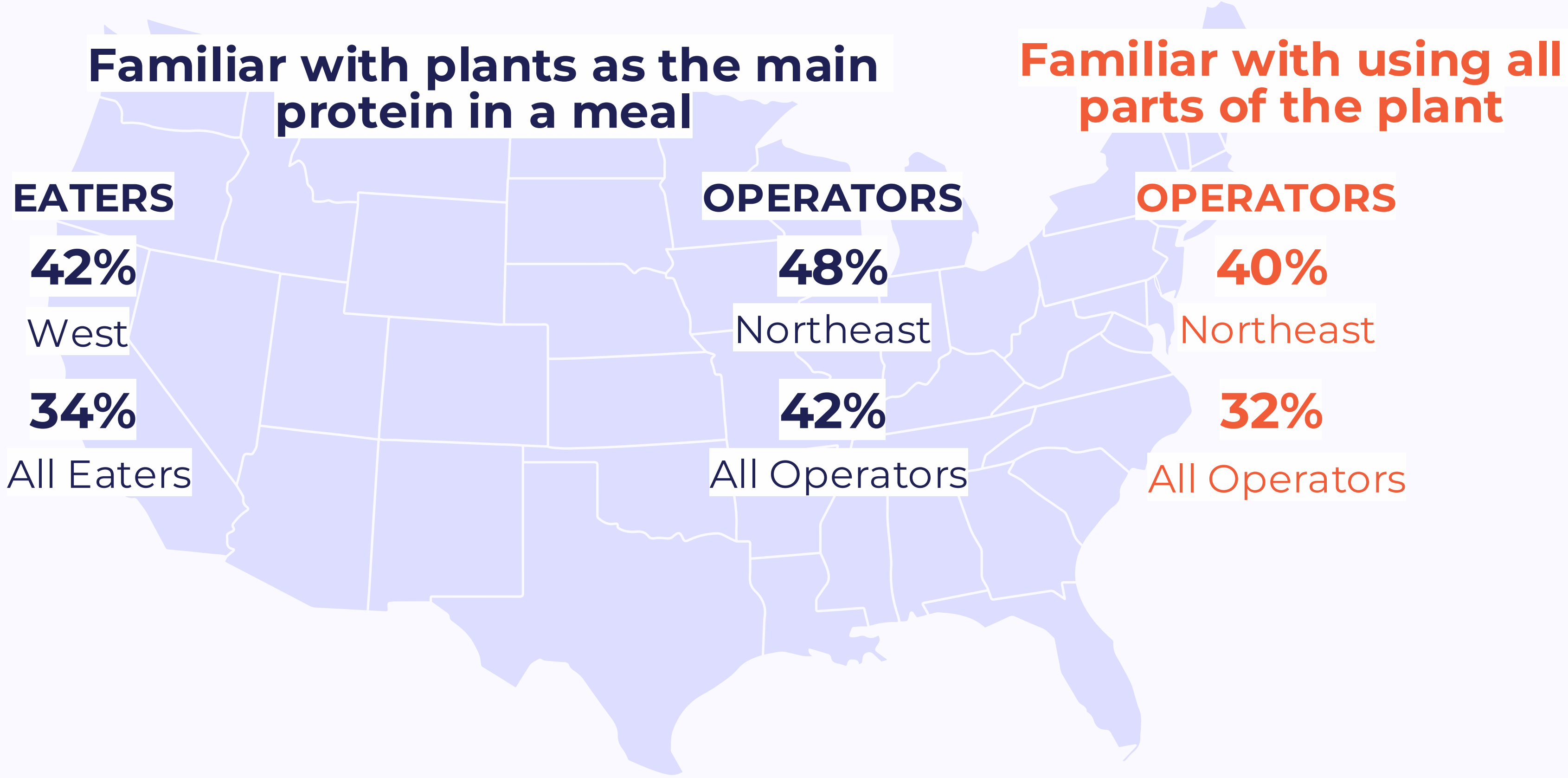
23% feel knowledgeable about using **little to no meat or animal proteins** or products

32% are familiar with using **all parts of the plant**

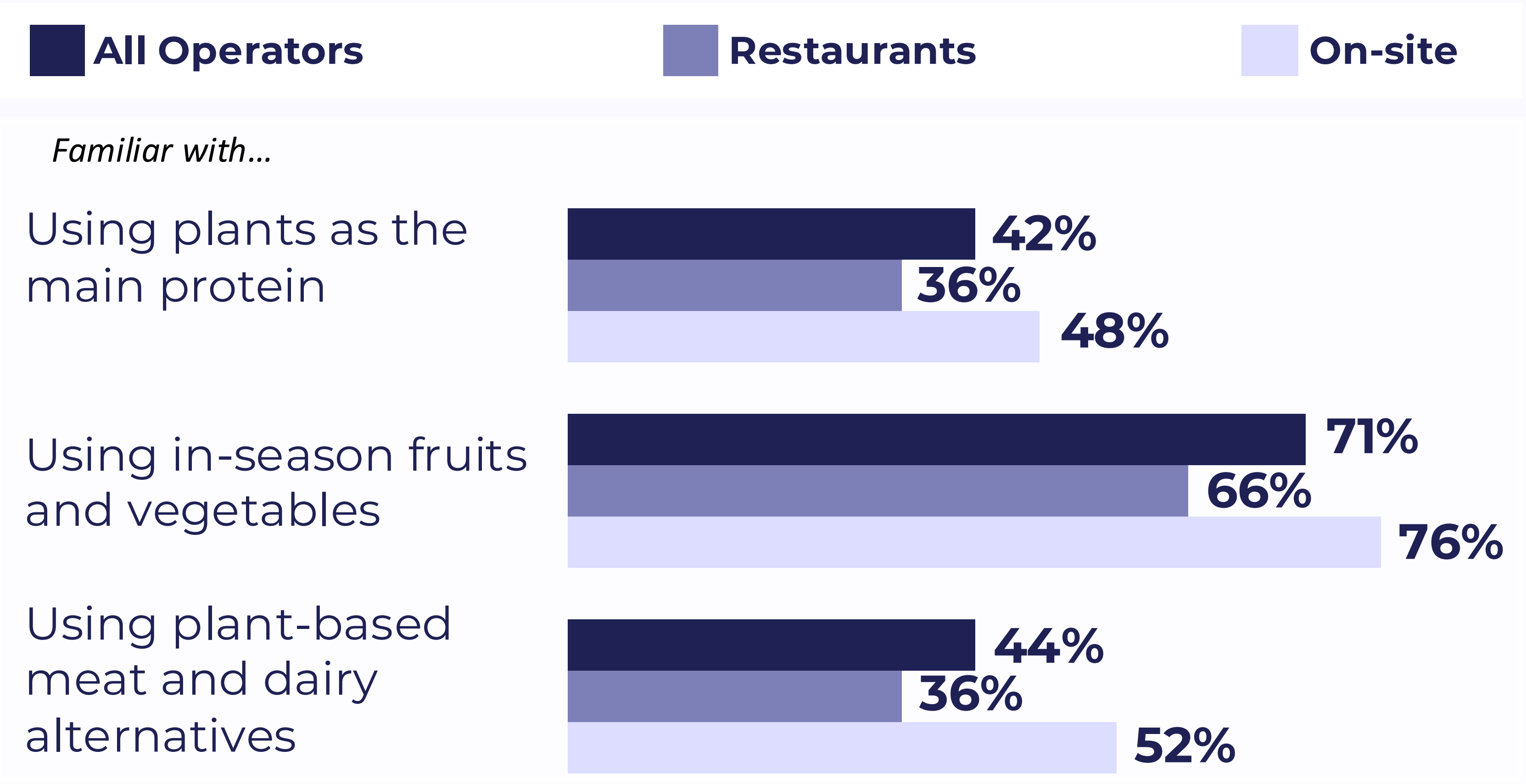
Question: Which of the following ways of sustainable eating do you feel knowledgeable about?

Other notable knowledge gaps

The coasts are hubs for plant-based knowledge, leaving a gap in the middle of the country.

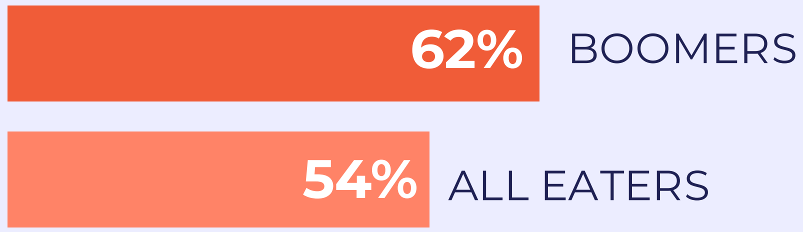


On-site operators are leading the way in sustainable offerings.

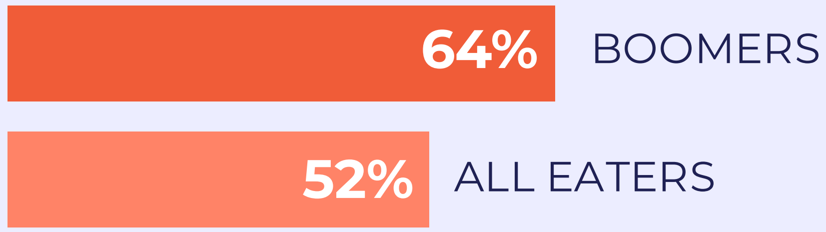


Boomers' knowledge differs from younger eaters in a few key ways

Using in-season fruits and vegetables



Using locally or regionally grown fruits and vegetables



Using all parts of the plant

Question: Which of the following ways of sustainable eating do you feel knowledgeable about?

From the Datassential Plant-Forward Opportunity Report

Based on how they see plant-forward foods portrayed in the media, **younger eaters and meat limiters are more likely to say that these foods are familiar** and comforting. See the full report.

	COMFORTING	ADVENTUROUS	FAMILIAR	UNFAMILIAR	BORING	CREATIVE
	43%	57%	39%	61%	30%	70%
Gen Z (n = 246)	46%	54%	46%	54%	26%	74%
Millennials (n = 464)	46%	54%	46%	54%	29%	71%
Gen X (n = 415)	43%	57%	37%	63%	31%	69%
Boomer (n = 379)	37%	63%	27%	73%	35%	65%
Meat Eaters (n = 1166)	41%	59%	37%	63%	34%	66%
Meat Limiters (n = 338)	48%	52%	44%	56%	20%	80%
Happy F&B Digital Media Users (n = 742)	44%	56%	44%	56%	24%	76%

Statistically Higher   Statistically Lower

Question: Do you think that plant-forward foods as seen on digital media are more likely to be described as the term on left or right? [n=1,504]

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INTENTION

Enthusiasm for sustainable dining is high among eaters and foodservice operators, but there is misalignment.

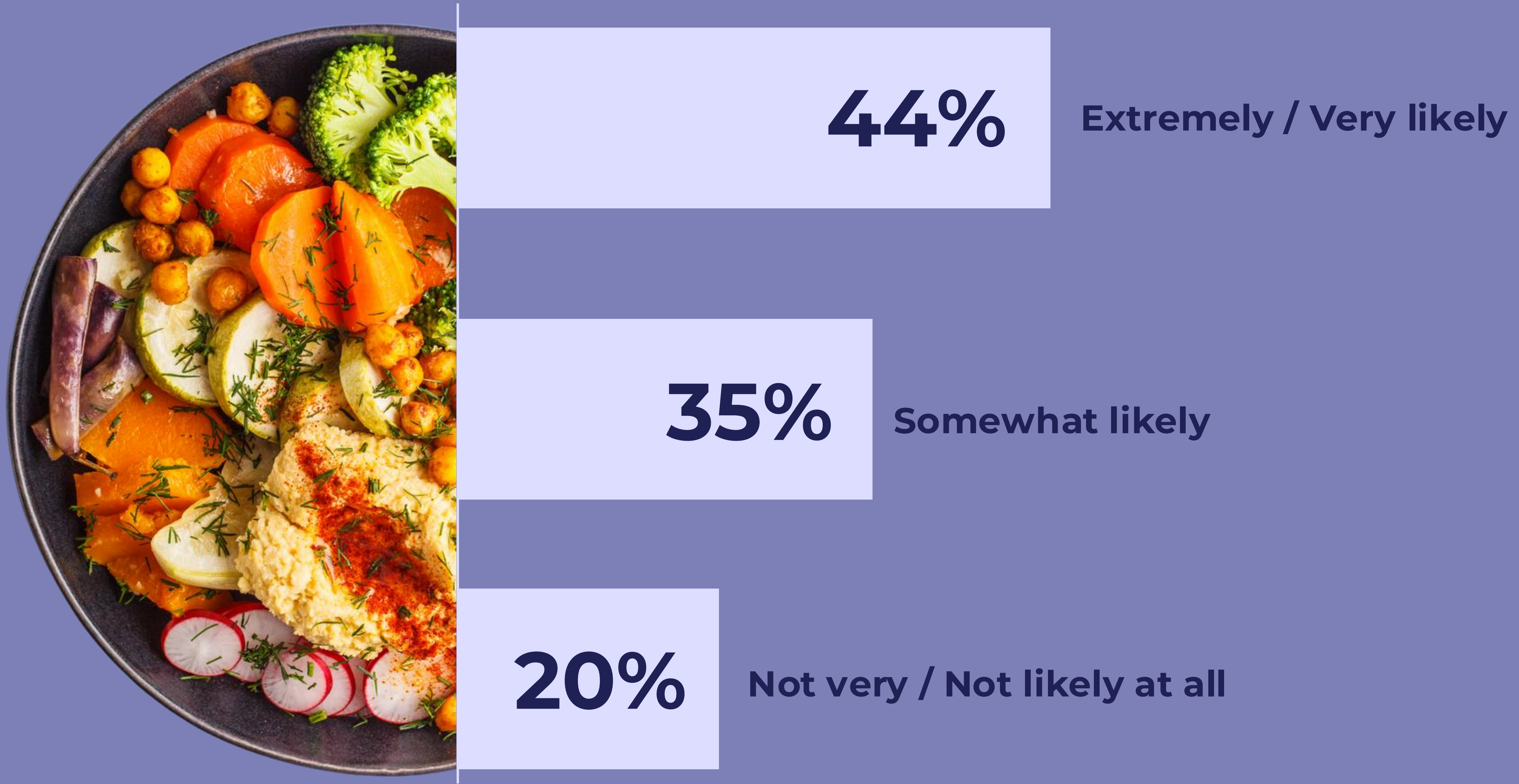
79% of consumers plan to eat more sustainably in the next year.

That includes 33% of consumers who say they never eat sustainable foods, but plan to start.

The most enthusiasm, not surprisingly, comes from Gen Z and Millennials.

More than half of these eaters (55% of Gen Z and 53% of Millennials) say they're extremely likely or very likely to incorporate more sustainable offerings in their diet, compared to 44% of all diners.

Worth noting: Gen Z and Millennials make up 42% of all eaters in the U.S.



Question: How likely are you to eat more sustainable foods in the next year?

Which sustainable foods are on eaters' lists? Mostly in-season fruits and vegetables, naturally.

Yet, nearly a quarter of eaters plan on trying some lesser-known and highly impactful ways of eating sustainably in the next year.

- 53% In-season fruits and vegetables
- 36% Locally sourced ingredients
- 34% Beans, legumes, and pulses
- 26% Foods grown or processed by workers who are treated humanely and paid a fair wage
- 24% **Meals with plants as the main protein**
- 24% **Meals with less meat and animal proteins**
- 20% Plant-based or vegan alternatives to dairy
- 19% Clams, oysters, mussels, and/or scallops
- 19% Foods/products made with regeneratively farmed ingredients
- 18% Plant-based meat alternatives
- 16% Meals without any animal proteins
- 16% **All parts of the plant**
- 13% Sea vegetables

Question: In what ways do you plan to eat more sustainable foods in the next year?

While 72% of foodservice operators say they are likely to offer more sustainable menu options, they could better match eaters' enthusiasm.

And while 44% of eaters say they're **extremely or very likely** to increase sustainable foods in the next year, only 30% of operators are.

Operator intentions also vary across segments, with statistically notable differences in full-service restaurants, limited-service restaurants, and college and university settings.

30% **Extremely / Very likely**
C&U: 53% FSRs : 33% LSRs : 19%

42% **Somewhat likely**

28% **Not very / Not likely at all**
Restaurant 33% On-site 24%

Question: How likely are you to increase your use of sustainable foods in the next year?

Operators plan to deliver the in-season and local options that eaters expect in the next year.

About a fifth also intend to increase the most impactful sustainable offerings.

- 53% In-season fruits and vegetables
- 48% Locally sourced ingredients
- 33% Beans, legumes, and pulses
- 22% Plant-based alternatives that mimic the meat experience
- 21% Meals with plants as the main protein
- 20% All parts of the plant
- 19% Plant-based or vegan alternatives to dairy
- 16% Meals with less meat and animal proteins
- 16% Foods grown or processed by workers who are treated humanely and paid a fair wage
- 13% Foods/products made with regeneratively farmed ingredients
- 10% Clams, oysters, mussels, and/or scallops
- 7% Meals without any animal proteins/products
- 6% Sea vegetables
- 13% Other or none of the above

Question: In what ways do you plan to increase sustainable food offerings in the next year?

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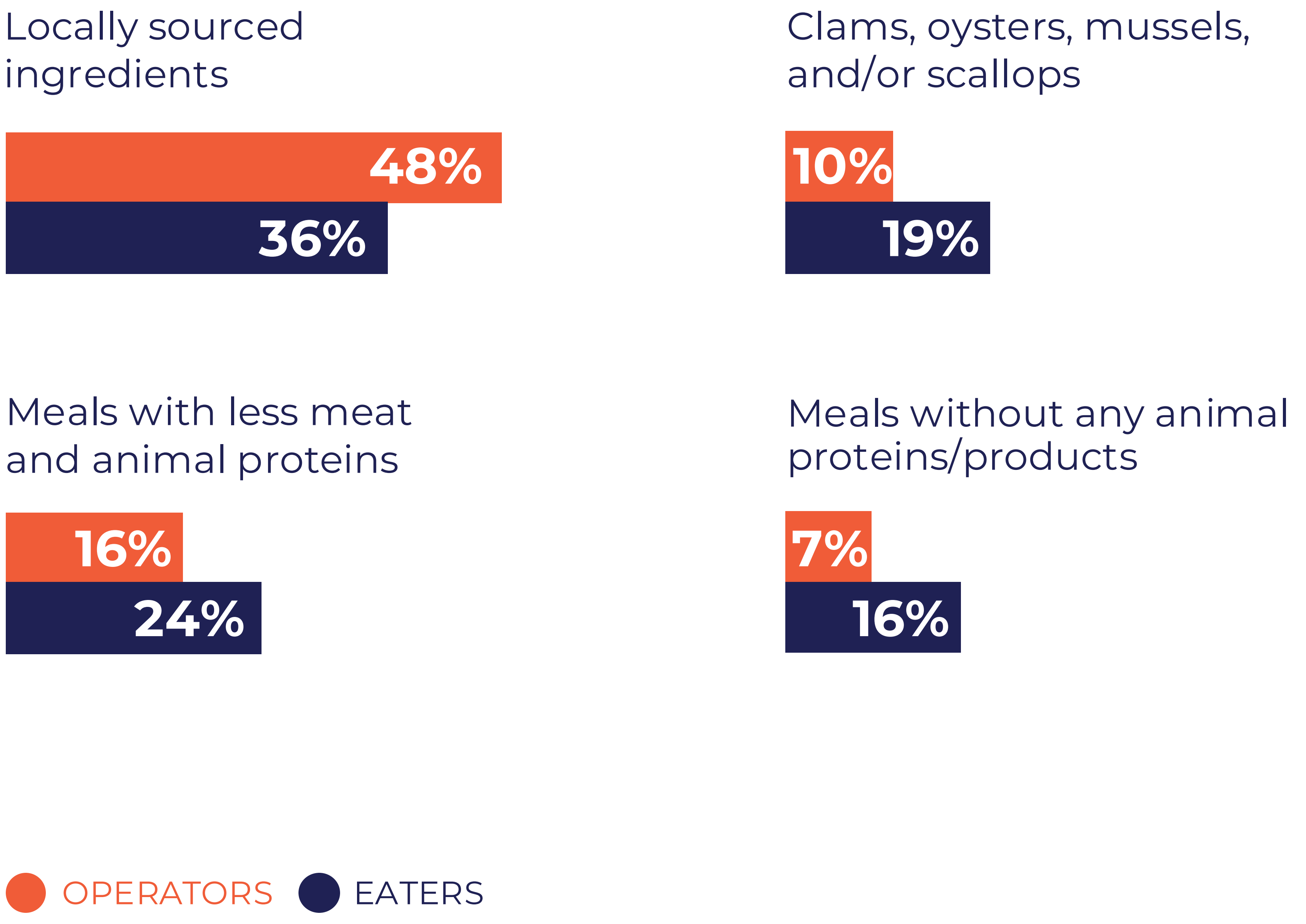
But eaters and operators aren’t aligned on all their intentions

These are some of the biggest gaps between what eaters want and what operators plan to menu.



How can well-intentioned operators and eaters get on the same page? Local produce is a great first step. But if operators can push past their menu standbys and incorporate less familiar options diners are interested in, such as bivalves, fair trade ingredients, and animal protein alternatives, we may see the gap start to close.”

—Danielle Boles,
Senior Researcher, FCL

Question: In what ways do you plan to increase sustainable food offerings in the next year?

Other notable intention gaps among eaters

West Coast eaters lead the way

Eat more beans, legumes, and pulses

WEST	42%
ALL EATERS	34%

Eat more plants as the main protein

WEST	31%
ALL EATERS	24%

Eat more foods grown by workers who are treated fairly

WEST	33%
ALL EATERS	26%

Eat more sea vegetables

WEST	19%
ALL EATERS	13%

How generations differ

Eat more food grown by workers treated fairly

GEN Z	30%
ALL EATERS	26%

Eat more plant-based meat alternatives

GEN Z	23%
ALL EATERS	18%

Eat more in-season fruits and vegetables

BOOMERS	62%
ALL EATERS	53%

Eat more locally sourced ingredients

BOOMERS	44%
ALL EATERS	36%

Question: In what ways do you plan to eat more sustainable foods next year (consumers)?
In what ways do you plan to increase sustainable food offerings in the next year (operators)?

Restaurants and on-site also have different plans.

While on-site operators are ahead of the pack in sustainable menu offerings, restaurants show interest in some lesser-known approaches.

Where on-site leads

	Restaurants	On-site
In-season fruits and vegetables All operators: 53%	45%	61%
Locally sourced ingredients All: 48%	43%	53%
Beans, legumes, and pulses All: 33%	24%	41%
Plant based foods that mimic meat All: 22%	17%	27%
Plant-based or vegan dairy All: 19%	12%	26%
Plants as the main protein in a meal All: 21%	18%	25%
Use less meat in a meal All: 16%	11%	21%
Avoid any animal proteins All: 7%	5%	8%

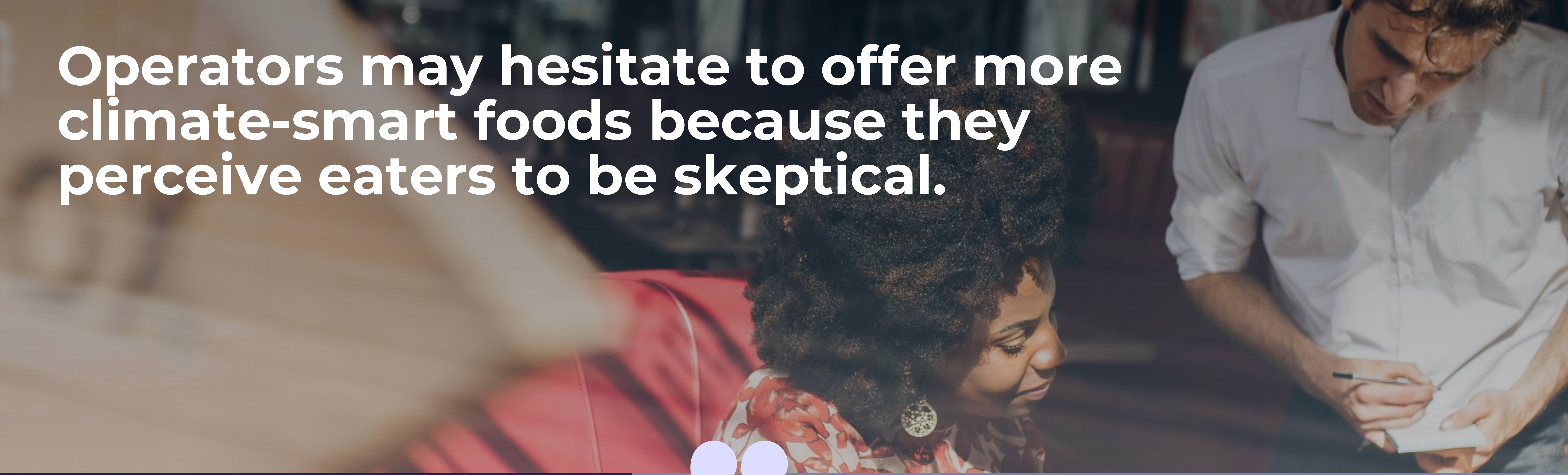
Where restaurants lead

	Restaurants	On-site
All parts of the plant All: 20%	25%	16%
Foods grown/produced by workers treated humanely and paid fairly All: 16%	20%	11%
Regeneratively farmed ingredients All: 13%	15%	10%
Clams, oysters, mussels, and/or scallops All: 10%	14%	6%
Sea vegetables All: 6%	7%	5%
Other / None of the Above All: 13%	15%	11%

Restaurants   On-site

Question: In what ways do you plan to increase sustainable food offerings in the next year (operators)?

Operators may hesitate to offer more climate-smart foods because they perceive eaters to be skeptical.

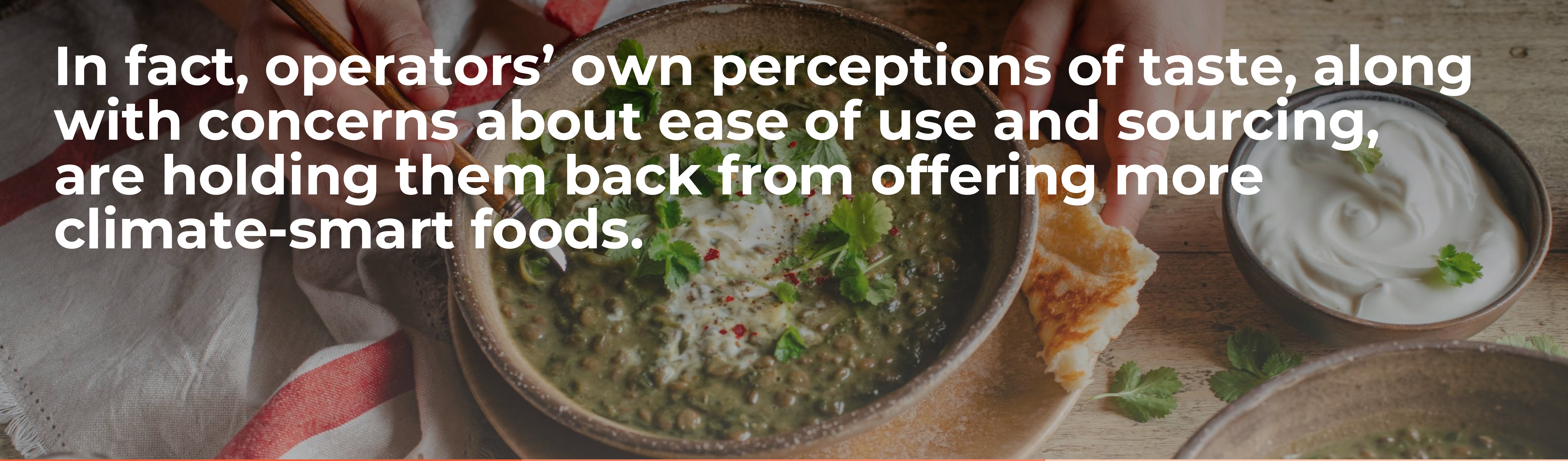


Almost half (48%) of foodservice operators are concerned that **price** will be a barrier for eaters, and about a third (31%) fear that customers will reject the **taste**.

Nearly a third of consumers say they are willing to pay higher prices for plant-forward menu items. And although one in five say they wouldn't order plant-forward meals, a larger share of consumers overall are willing to pay more (31%), than say they are not willing to pay more (26%). In addition, Gen Z, millennials, foodies, and meat limiters are significantly more open to paying high prices than their demographic counterparts.

From **the** Datassential Plant-Forward Opportunity Report

Question: Which are concerns you have with offering more sustainable ingredients or reducing the number of unsustainable ingredients?



In fact, operators' own perceptions of taste, along with concerns about ease of use and sourcing, are holding them back from offering more climate-smart foods.

55% of operators expressed that they'd be inclined to offer new climate-smart items **if they tasted good to them.**

40% said they'd be more likely to serve them **if they were easy to source.**

38% noted that they'd be likely to incorporate them **if they were easy to use.**

Question: What, if anything, would encourage you to buy more sustainable foods for your operation?

OPPORTUNITY

With both eaters and foodservice operators open to trying new things, opportunities abound to close the gap.

1. It’s time to get creative.

Operators have an opportunity to better meet eater needs, though it may mean learning new skills, experimenting with new ingredients, and challenging existing assumptions.

Eaters’ eagerness to eat more sustainably is an invitation for operators to enhance their skills.

Upskilling in preparation techniques and new sourcing methods can build confidence and enthusiasm around flavor and presentation. Eaters have shown they are eager to eat meals with less meat and animal proteins, and more meals that feature sustainable aquatic foods. Operators should see this willingness as an opportunity to get creative, build staff skills, and test the waters with limited-time offers.

2. Shifting perception is key.

When staff are able to prepare and serve climate-smart foods because they want to—rather than because they have to—eaters benefit. This requires a shift in operator perception, from seeing climate-smart foods as costly, unsatisfying, and difficult, to seeing them as on-trend, in-demand, and delicious. **The secret sauce: hands-on motivation and engagement.**

2. Shifting perception is key.

Continued

Proof point

Motivational workshops to engage front-line staff, like the program FCL developed that is currently being utilized globally by Google, have been effective at shifting cooks' perceptions of plant-forward cooking and motivating them to upskill in cooking plants.

84%

of line cooks agreed or strongly agreed that their personal connection to plant-forward cooking was increased after participating in a 90-minute culinary inspiration workshop.

88%

of line cooks who participated in the workshop signed on for a 6-month plant-forward culinary training program immediately afterward.

931

employees have enrolled in the workshop as of December 1, 2024, across 14 countries.

See FCL's Case Study - Google Culinary Inspiration Program for Google Chefs and Cooks

3. Embrace the role of influencer.

Rather than lagging behind, operators can be leading the way in the climate-smart food movement. More knowledgeable than eaters on many of the most impactful ways to eat and cook sustainably, **operators play a crucial role in guiding and educating diners, and ultimately transforming food culture.**

It's not just about meeting eater demand, but also about delivering on eaters' desire to experience new foods, flavors, and preparations that align with climate-smart food choices. This means presenting delicious climate-smart choices at every opportunity—making those foods readily available and as appealing and satisfying as anything else on offer.

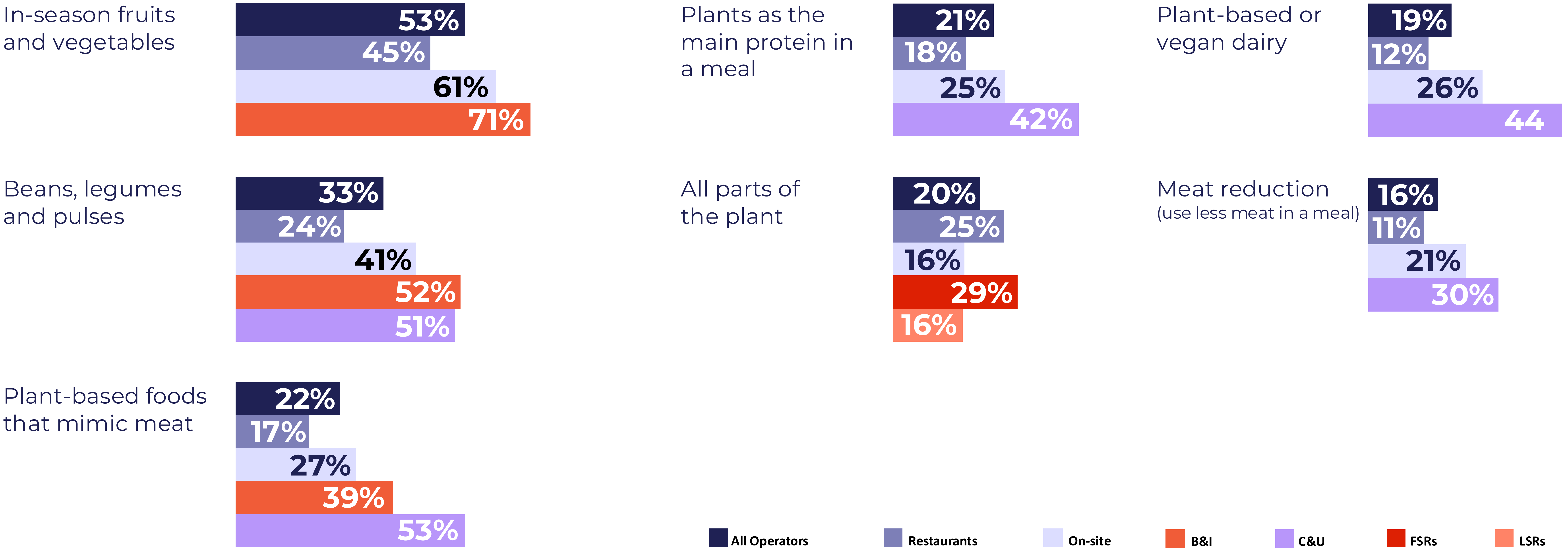
Sign of Change

78% of operators told us they are at least somewhat likely to recommend sustainable foods to customers in the next year

4. Learn from operators leading the way.

Operators in business and industry (B&I) and colleges and universities (C&U) are out front in terms of sustainable offerings, both in what they currently menu and in what they plan to offer in the future.

Operators intend to use more:



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4. Learn from operators leading the way.

Continued

Proof Point

In partnership with Sodexo, FCL conducted a five-week randomized controlled trial in Fall 2022 at three universities' all-you-care-to-eat dining halls, in which **plant-based dishes were presented by default,** with a sign noting that a meat-based option was available upon request. The result? The **take-rate of the plant-based dishes increased 81.5%** compared to just 30.8% when meat- and plant-based options were offered side-by-side. What's more, **food-related greenhouse gas emissions dropped an average of 23.6%** on plant-based default days.

See FCL's Case Study - Serving Up Plants By Default

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5. Pilot and see.

Foodservice operators nervous about customer acceptance of sustainable dishes can give them a test run by **making incremental menu changes and incorporating LTOs.** Our research shows that success with menuing climate-smart dishes relies on the same fundamentals as any other offering. Is it on trend? Is it delicious and satisfying? Make it appeal to those intrinsic desires first, and the fact that it is plant-based will be a bonus.

Join an FCL Pilot

BEANS CAN campaign

FCL is looking to partner with quick-service or fast-casual restaurant brands to pilot test narratives and bold visual concepts that have been shown to increase bean consumption and decrease meat consumption.

Interested? Contact FCL at
info@foodforclimateleague.org

Defaults Toolkits & Trainings

Our research shows that serving plants by default is an effective way to increase consumption of plant-forward meals—but only if implemented correctly. FCL is working with operators to test toolkits and workshops to scale these resources widely.

6. Lead with deliciousness and sustainability will follow.

At the end of the day, the biggest driver of change comes from delighting eaters with delicious food.

There is a lot of culinary exploration to be had: **75% of the world's food supply comes from just 12 plant and five animal species**—and yet there are more than 300,000 known edible plant species, alone. This means countless opportunities for creativity in preparing, presenting, and naming sustainable menu items so that eaters will happily choose them.

Name Game

5% The amount by which purchase intent can increase from the name and description you give sustainable dishes, alone

Source: FCL and Sodexo Future Food Collective Innovation Sprint

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About this report: Respondent Breakdown

The 2025 Closing the Gap Report is the first in a three-year study, measuring eaters' and foodservice operators' perspectives on climate-smart dining. We will check back in, tracking menu offerings and eating habits over the coming years.

How data was collected

Consumers and foodservice operators responded to online survey questions via Datassential's Omnibus:

For the study, conducted in August 2024 by Datassential, 1,500 U.S. consumers ages 18+ were polled via online survey, as were 403 operators (201 restaurant; 202 on-site) from Datassential's OPERA panel. See "About This Study" for full detail.

Consumer
of those qualified

GENDER	Male Female	50% 50%
GENERATION	Gen Z Millennial Gen X Boomer+	17% 32% 27% 24%
INCOME	<$25K $25K - $49K $50K - $74K $75K - $99K $100K +	24% 24% 19% 13% 18%
RACE	White Black Asian Other	73% 13% 5% 9%
HISPANIC	Yes	16%
REGION	West Midwest South N. East	22% 21% 40% 17%

Operator
of those qualified

SEGMENT	QSR Fast Casual Midscale Casual dining Fine dining Healthcare Lodging B&I C&U K-12	7% 9% 14% 14% 6% 10% 11% 8% 11% 10%
RESTAURANT TYPE	Independent Chain	65% 35%
AFFILIATIONS	GPO Member Contract Managed* *among on-sites	28% 32%
REGION	West Midwest South N. East	18% 31% 33% 19%

THANK YOU.

For additional inquiries and information, please reach out to:

DATASSENTIAL

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