

2023

Plant-Forward Opportunity Report

A DATASSENTIAL REPORT

in collaboration with

The Culinary Institute of America,
Food for Climate League, and the

Menus of Change University Research Collaborative



2023

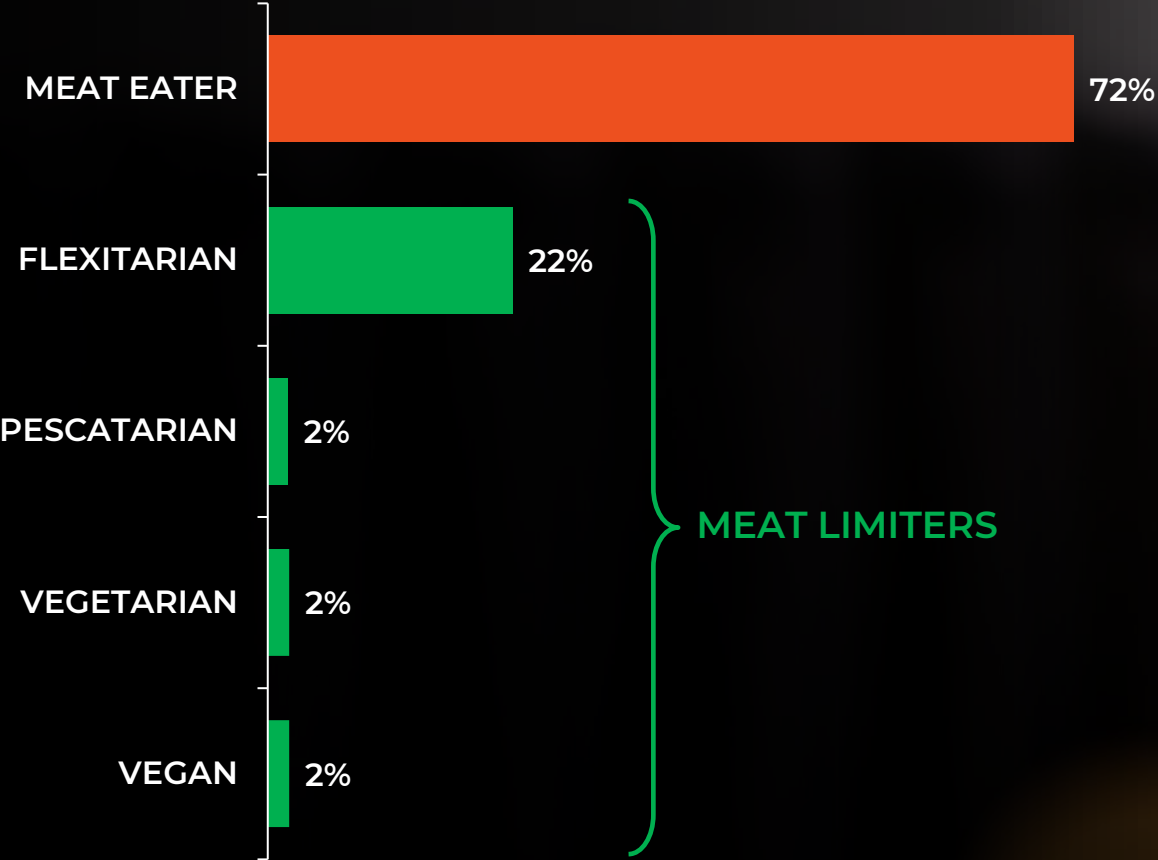
Key Findings

- 01** Plant-forward eating isn't just for "kids today;" interest in plant-forward eating is increasing across the general population.
SLIDES: [04-07](#)
- 02** Health is the driving factor in consumer selection of plant-forward or plant-based foods.
SLIDES: [08-09](#)
- 03** Consumers expect plant-based items to cost more than animal-based equivalents, yet willingness to pay more is muted.
SLIDES: [10-13](#)
- 04** Perceptions of plant-based protein are high across all attributes including being healthy, sustainable, and a good source of protein.
SLIDES: [14-16](#)
- 05** Inherently plant-forward dishes are likely to see more near-term growth than those with meat analogs.
SLIDES: [17-19](#)
- 06** Reducing "risk" for consumers is key to plant-forward dish trial.
SLIDES: [20](#)
- 07** Focus on taste and dish composition when leaning plant-forward.
SLIDES: [21-23](#)



Over one-quarter of the general population is limiting meat in their diet.

WHICH BEST DESCRIBES THE WAY YOU EAT TODAY? (N = 1,501)



Meat limiting is driven by women, Gen Z, and (somewhat surprisingly) Boomers.

Boomers are very unlikely to be vegan (vegans skew heavily Gen Z), but Boomers are the most likely generation to say they are flexitarians.

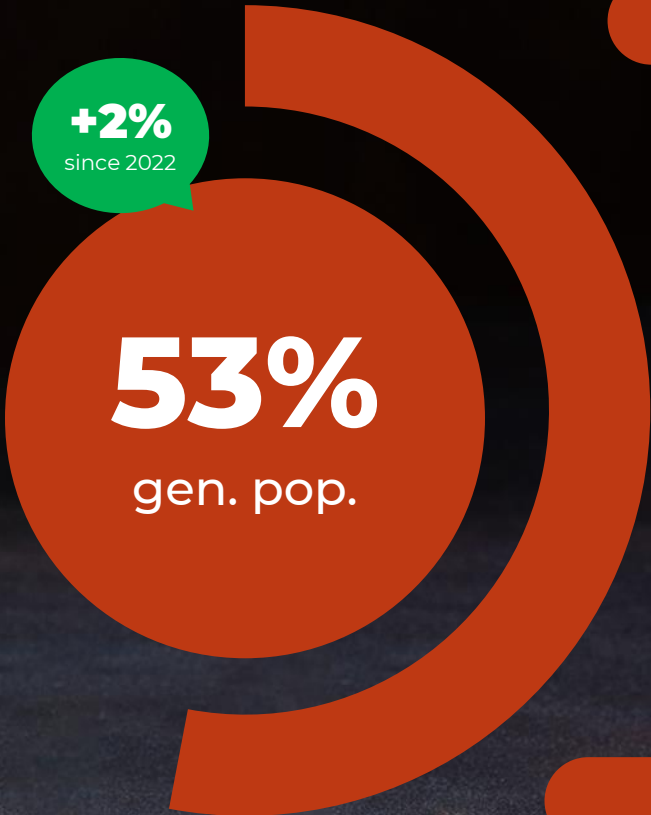


	Total <i>n=1,501</i>	Male 735	Female 755	Gen Z 191	Millennial 422	Gen X 400	Boomer+ 488
MEAT LIMITERS	28%	23%	31%	32%	21%	25%	34%
MEAT EATER	72%	77%	69%	68%	79%	76%	66%
FLEXITARIAN	22%	18%	26%	21%	17%	20%	29%
VEGAN	2%	2%	2%	5%	1%	3%	1%
VEGETARIAN	2%	2%	2%	4%	1%	1%	2%
PESCATARIAN	2%	2%	2%	3%	1%	1%	2%

statistically higher statistically lower

Over half of the population is open to a plant-forward eating pattern.

ARE YOU OPEN TO PLANT-FORWARD OR FLEXITARIAN EATING? (TOP-2, 5 PT. SCALE) (N = 1,501)



- 70% of meat limiters*
- 52% of Gen Z
- 64% of Millennials
- 66% of students
- 60% of high-income HHs (\$100K+)
- 69% of foodies

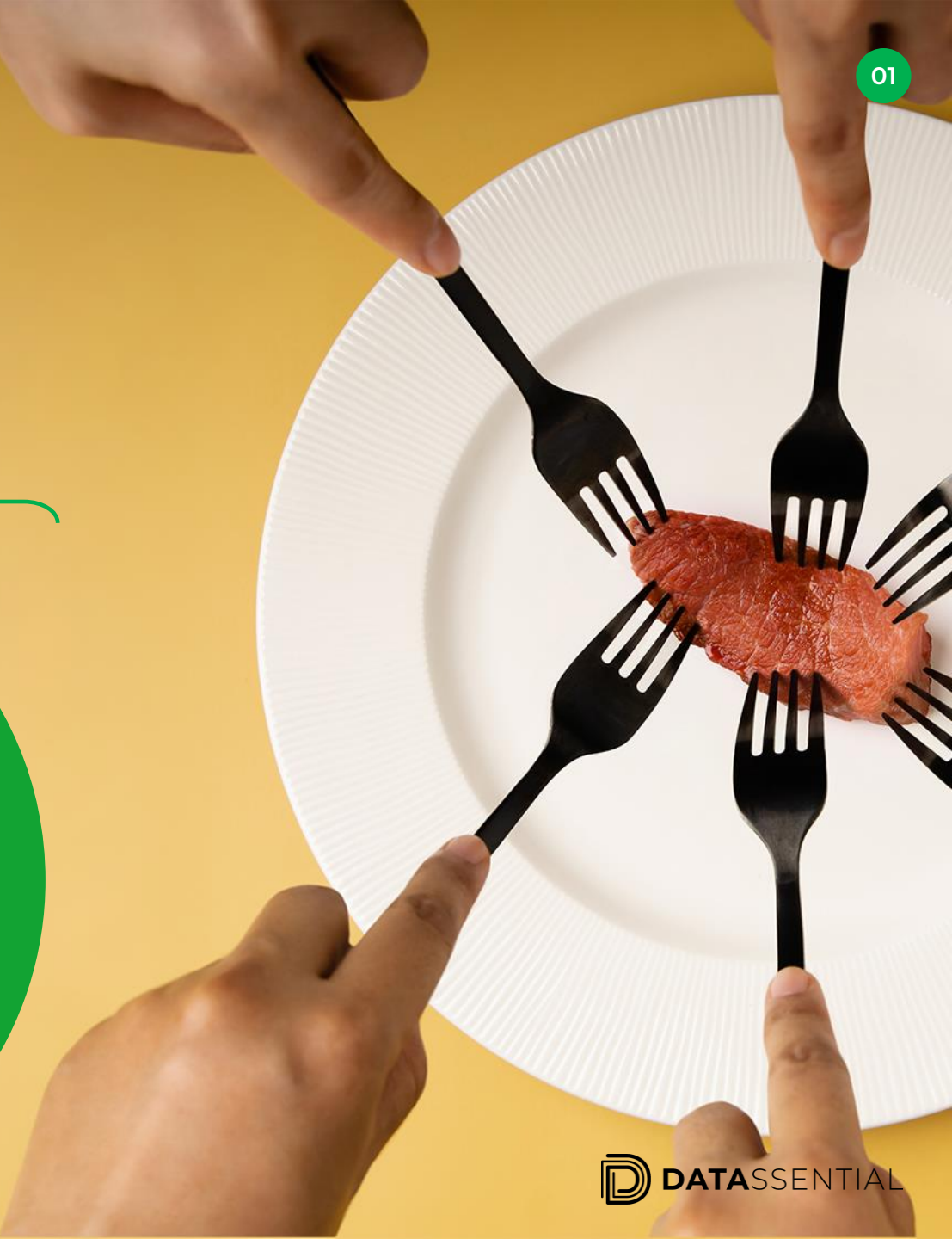
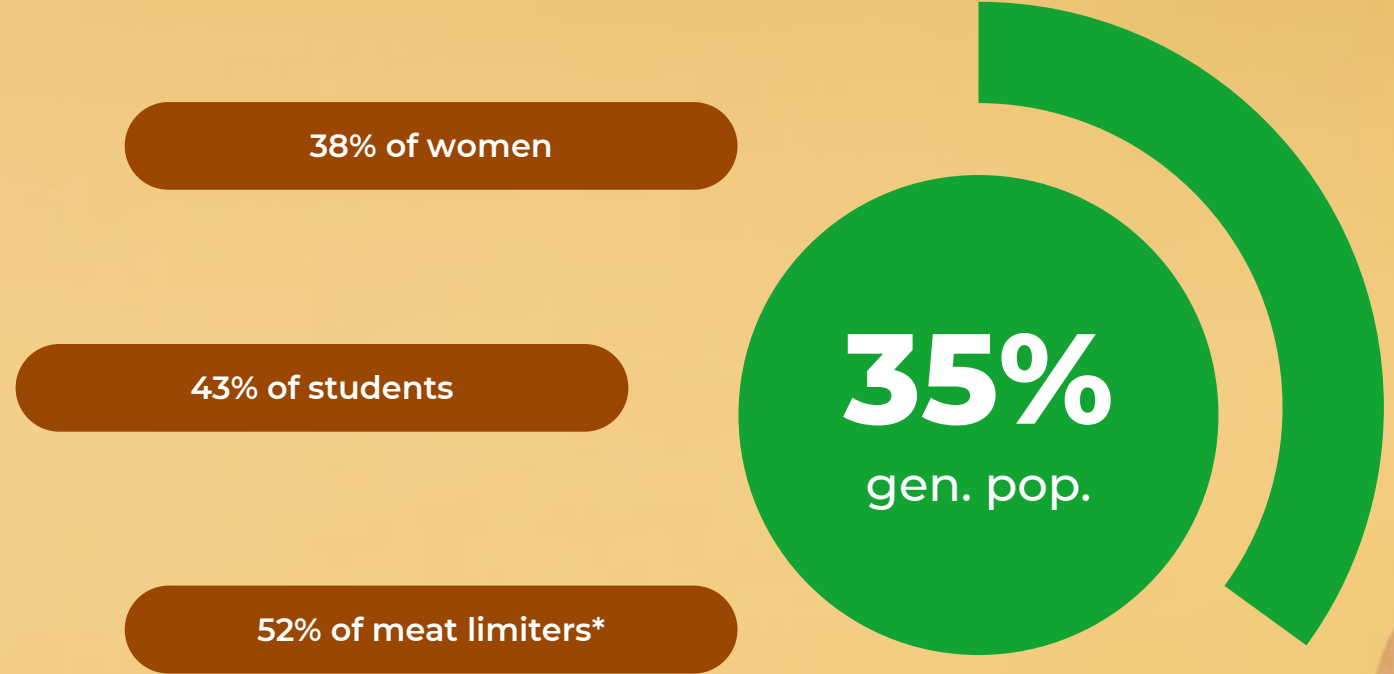


SOURCE: 2023 Plant-Forward Opportunity Report | * vegan, vegetarian, pescatarian, & flexitarian consumers

Interest in reducing meat portion sizes at home is driven by women, students, and meat limiters.

HOW LIKELY ARE YOU TO DO THE FOLLOWING IN THE NEXT YEAR? (TOP-2, 5 PT. SCALE) (N=1,501)

are likely to **TO REDUCE THE PORTION SIZE OF MEAT IN A MEAL THEY MAKE AT HOME** in the next year

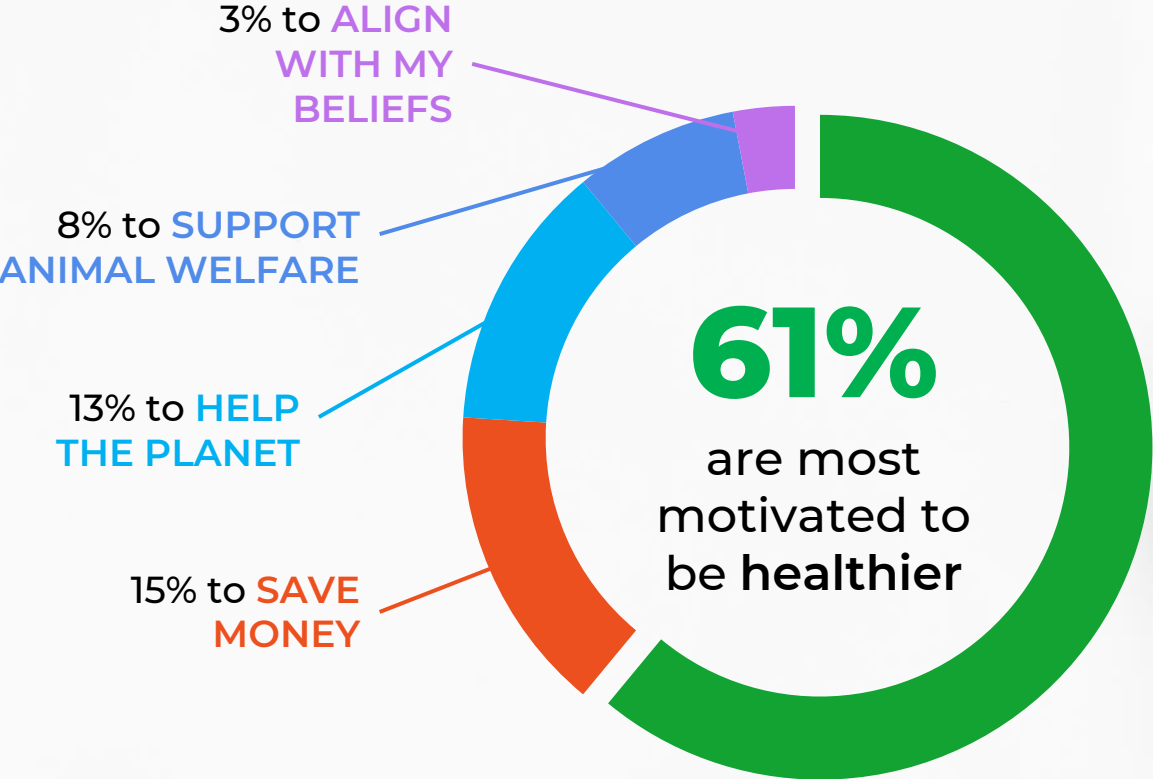


SOURCE: 2023 Plant-Forward Opportunity Report | * vegan, vegetarian, pescatarian, & flexitarian consumers

Consumers say that health is the driving factor in selection of plant-forward or plant-based foods.

Saving money and helping the planet are secondary to health and together are half as likely to be the main driver for consumers.

WHEN CONSIDERING EATING A PLANT-FORWARD OR PLANT-BASED ITEM, WHICH OF THE FOLLOWING IS MOST MOTIVATING? (N=1,501)



SOURCE: 2023 Plant-Forward Opportunity Report

Compared to the overall population, female and older consumers are more likely to eat plant-forward or plant-based for health reasons.

Meanwhile, men, Gen Z, and meat eaters are more likely to switch to plant-forward or plant-based in order to save money. Moral reasons matter more to meat limiters and Gen Z consumers.

WHEN CONSIDERING EATING A PLANT-FORWARD OR PLANT-BASED ITEM, WHICH OF THE FOLLOWING IS MOST MOTIVATING? (N=1,501)

	Total <i>n=1,501</i>	Male 735	Female 755	Meat Limiters* 415	Meat Eaters 1,086	Gen Z 191	Millennial 422	Gen X 400	Boomer+ 488
Health reasons – to be healthier	61%	59%	65%	64%	61%	47%	58%	64%	68%
Cost reasons – it is cheaper	15%	17%	12%	7%	17%	19%	15%	16%	11%
Environmental reasons – to help the planet	13%	14%	12%	13%	13%	17%	15%	11%	12%
Moral reasons – to support animal welfare	8%	7%	8%	14%	6%	14%	9%	7%	6%
Religious or cultural reasons – it aligns with my beliefs	3%	3%	3%	3%	3%	3%	3%	3%	2%

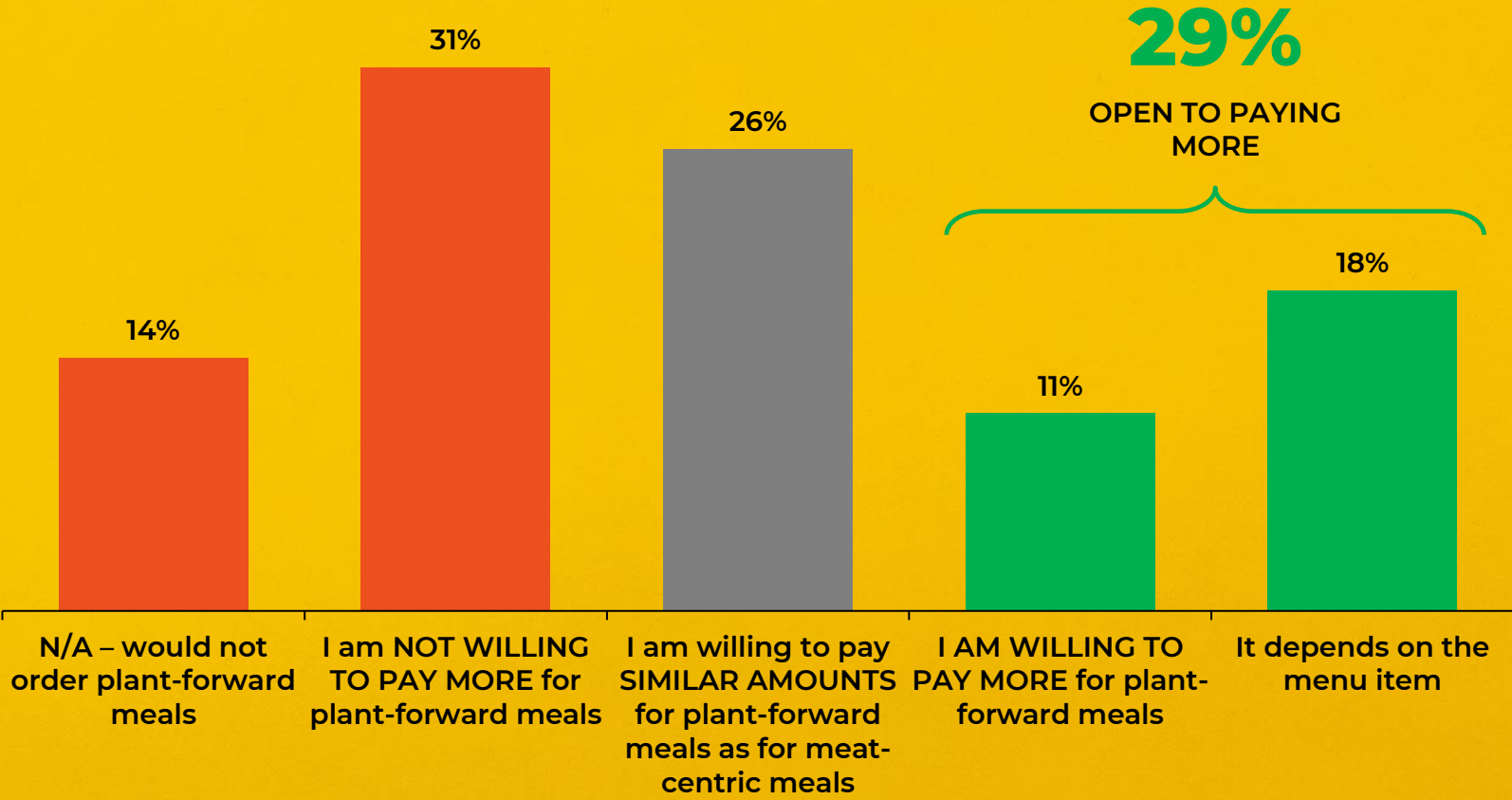
statistically higher statistically lower

SOURCE: 2023 Plant-Forward Opportunity Report | * vegan, vegetarian, pescatarian, & flexitarian consumers

Willingness to pay for plant-forward is muted.

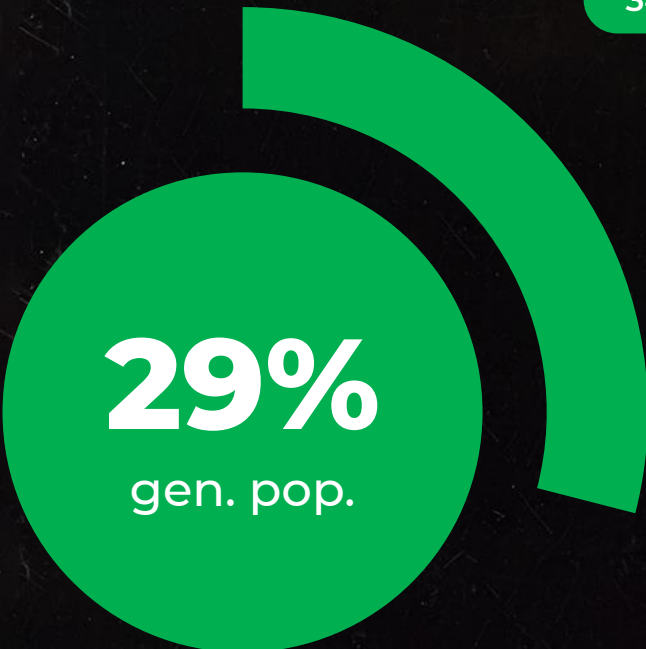
However, nearly one-in-five say it depends on the menu item, which shows there is openness to pay more for plant-forward menu items at restaurants.

WHICH BEST DESCRIBES YOUR OVERALL WILLINGNESS TO SPEND ON PLANT-FORWARD MENU ITEMS AT RESTAURANTS? (N=1,501)



Students, Gen Z, Millennials, meat limiters, and higher-income consumers are most willing to pay higher prices for plant-forward restaurant dishes.

WHICH BEST DESCRIBES YOUR OVERALL WILLINGNESS TO SPEND ON PLANT-FORWARD MENU ITEMS AT RESTAURANTS? (N=1,501)



34% of high-income HHs (\$100K+)

40% of students

35% of meat limiters*

31% of Gen Z

36% of Millennials



SOURCE: 2023 Plant-Forward Opportunity Report | * vegan, vegetarian, pescatarian, & flexitarian consumers

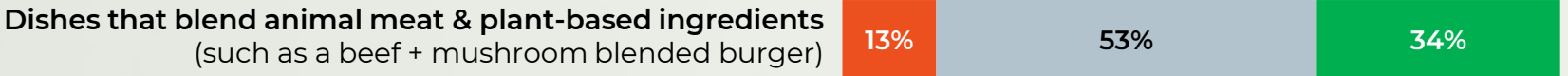
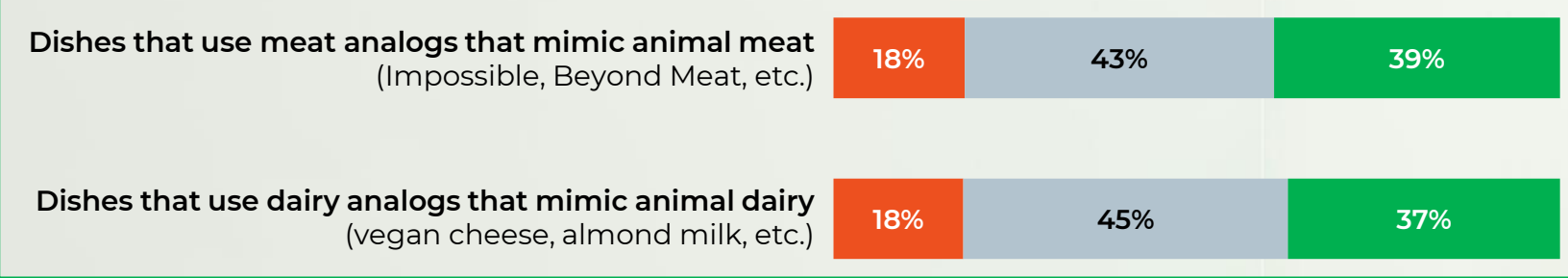
Consumers' expectation is that plant-based items should cost more than their animal-based counterparts.

Although consumers say most items should cost the same regardless of their ingredients, they are most likely to say that plant-based meat analogs should cost more, with over twice as many expecting them to be higher-priced rather than lower-priced compared to animal-based equivalents.

FOR EACH OF THE FOLLOWING TYPES OF MENU ITEMS FROM RESTAURANTS, DO YOU THINK THEY SHOULD... (N=1,501)

Cost LESS than animal-based items Cost THE SAME as animal-based items Cost MORE than animal-based items

ANALOGS

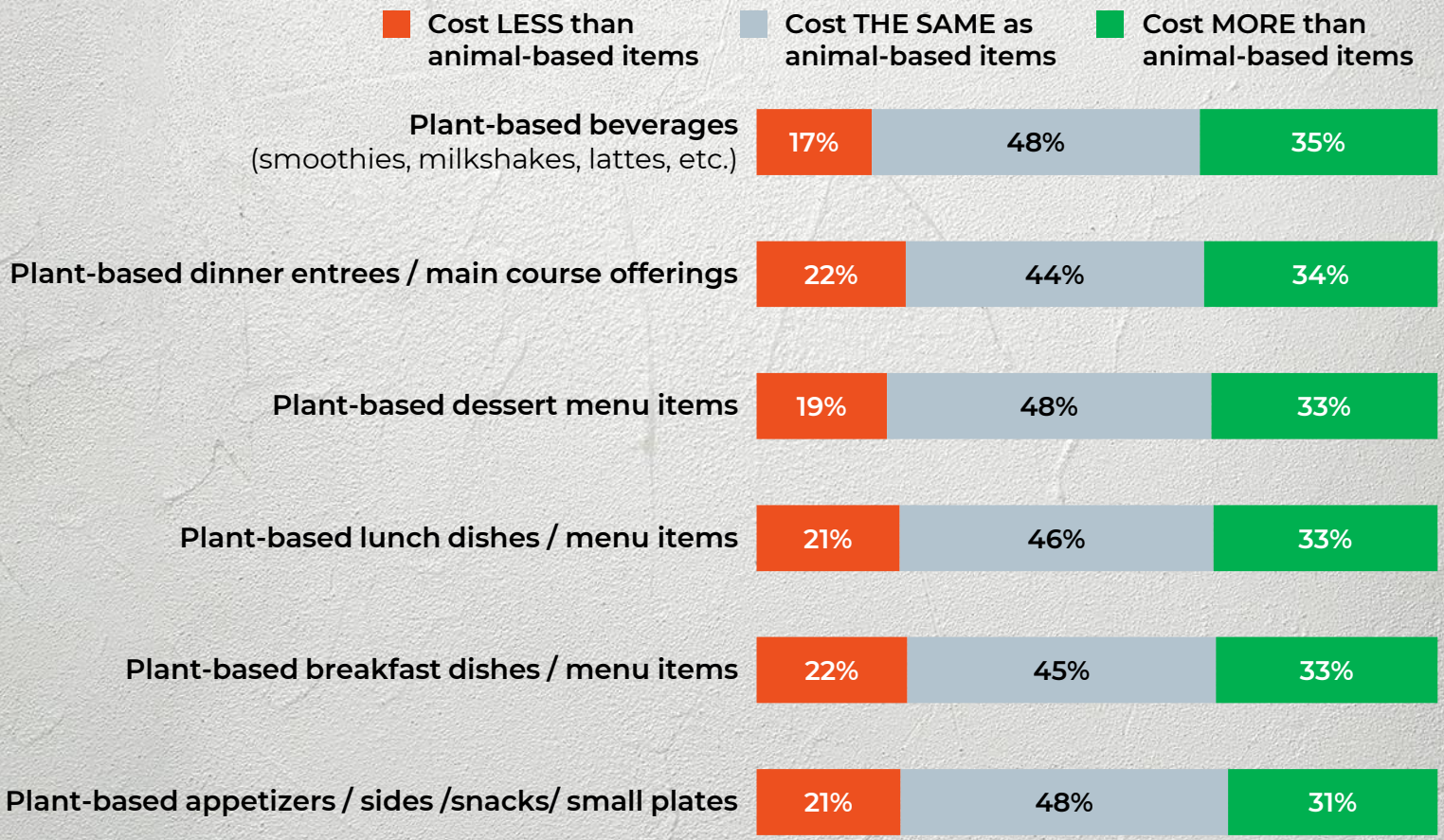


SOURCE: 2023 Plant-Forward Opportunity Report | * vegan, vegetarian, pescatarian, & flexitarian consumers

The type of plant-based dish does not change the price expectation.

Regardless of whether restaurants are offering a beverage, entrée, or a dessert, consumers generally think the plant-based offering should cost somewhat more than an animal-based equivalent.

FOR EACH OF THE FOLLOWING TYPES OF MENU ITEMS FROM RESTAURANTS, DO YOU THINK THEY SHOULD... (N=1,501)

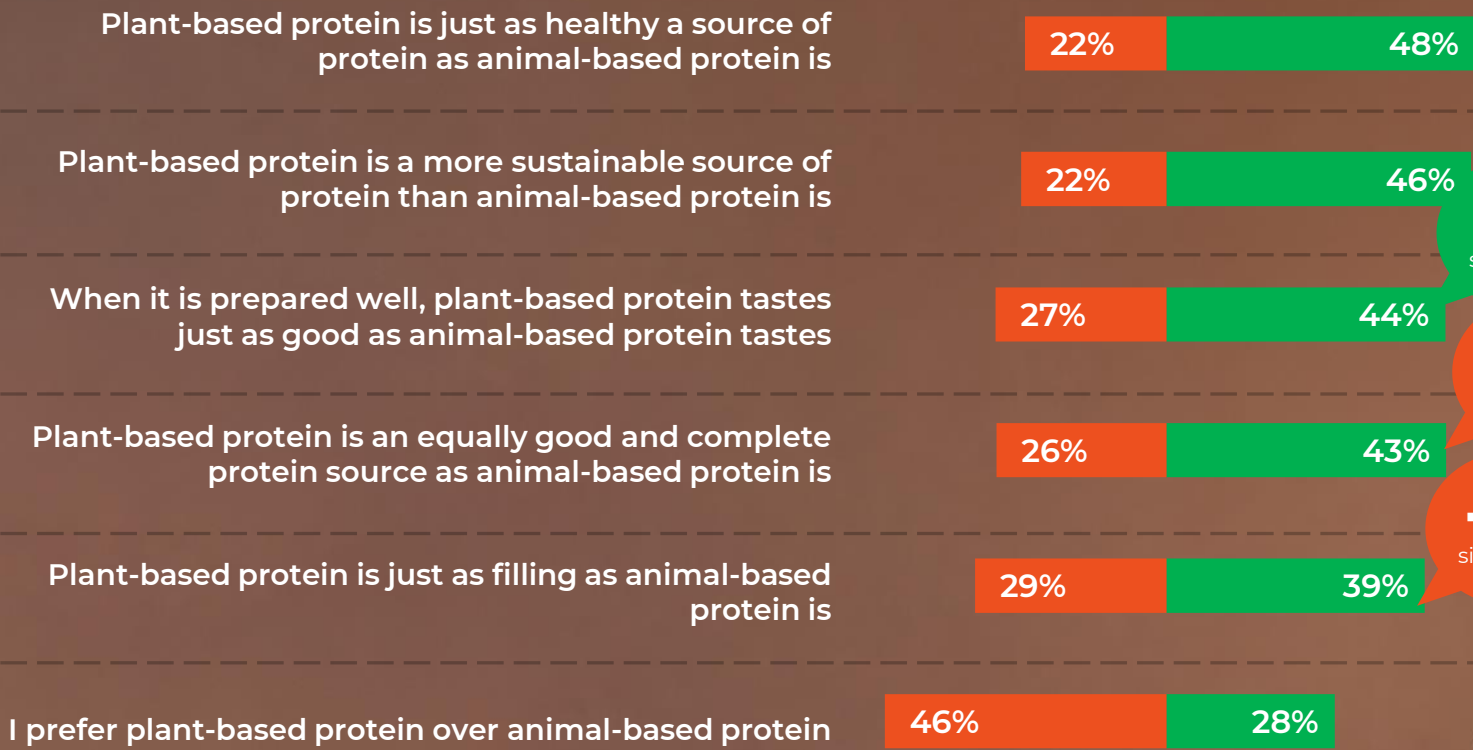


SOURCE: 2023 Plant-Forward Opportunity Report

Consumers perceive plant-based proteins to be healthy, sustainable, tasty, and a good source of protein.

Compared to animal proteins, plant-based has the most ground to gain on being filling and preferred overall.

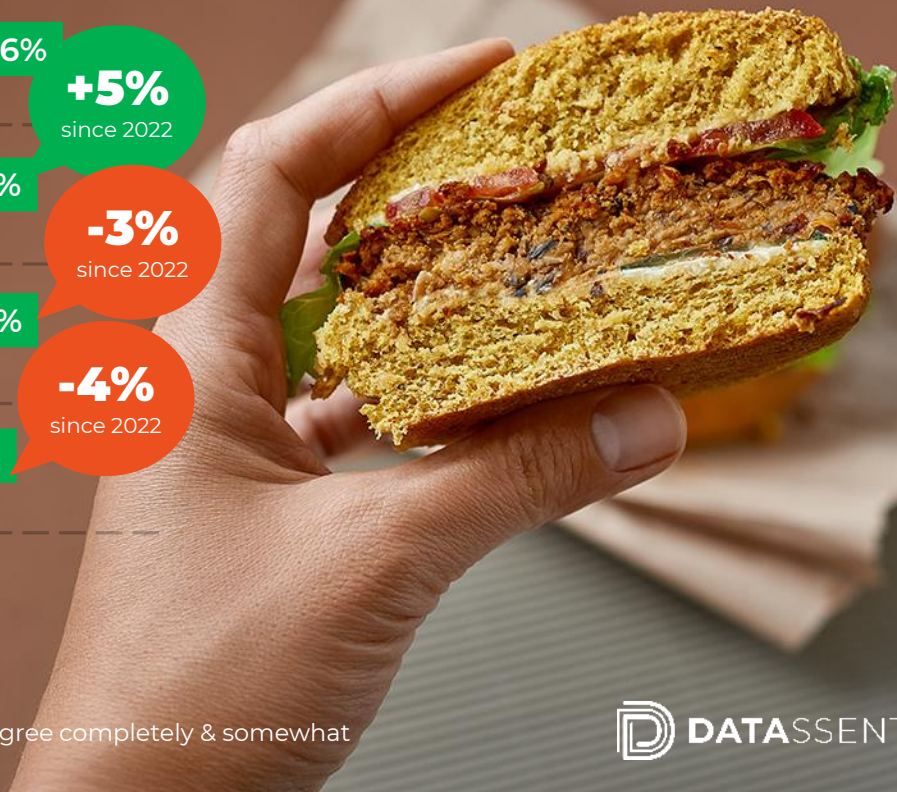
PLEASE TELL US YOUR LEVEL OF AGREEMENT WITH EACH OF THE FOLLOWING STATEMENTS. (N=1,501)



+5% since 2022

-3% since 2022

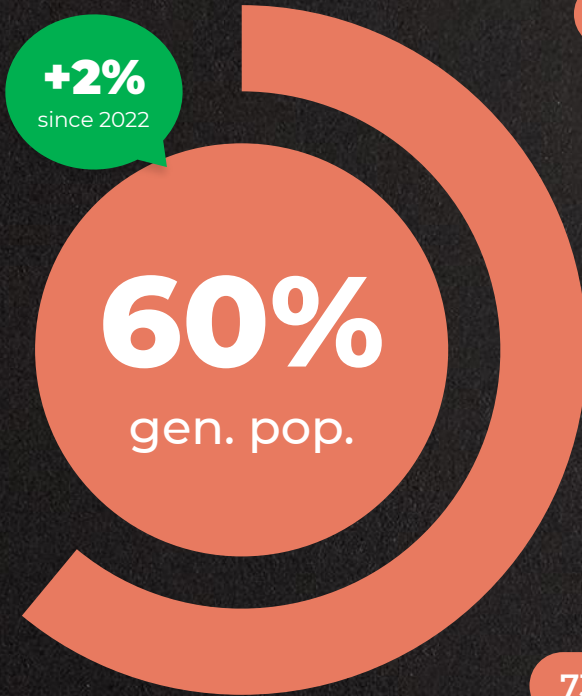
-4% since 2022



Mixing animal and plant proteins has the highest appeal among Millennial, Gen X, and high-income consumers.

Blends are a great way to win over those consumers who are more entrenched in their habits – those who are older and/or more established in their diets and lifestyles.

ARE YOU OPEN TO TRYING MORE DISHES THAT MIX ANIMAL AND PLANT PROTEINS? (N = 1,501)



64% of meat limiters*

56% of Gen Z

68% of Millennials

63% of Gen X

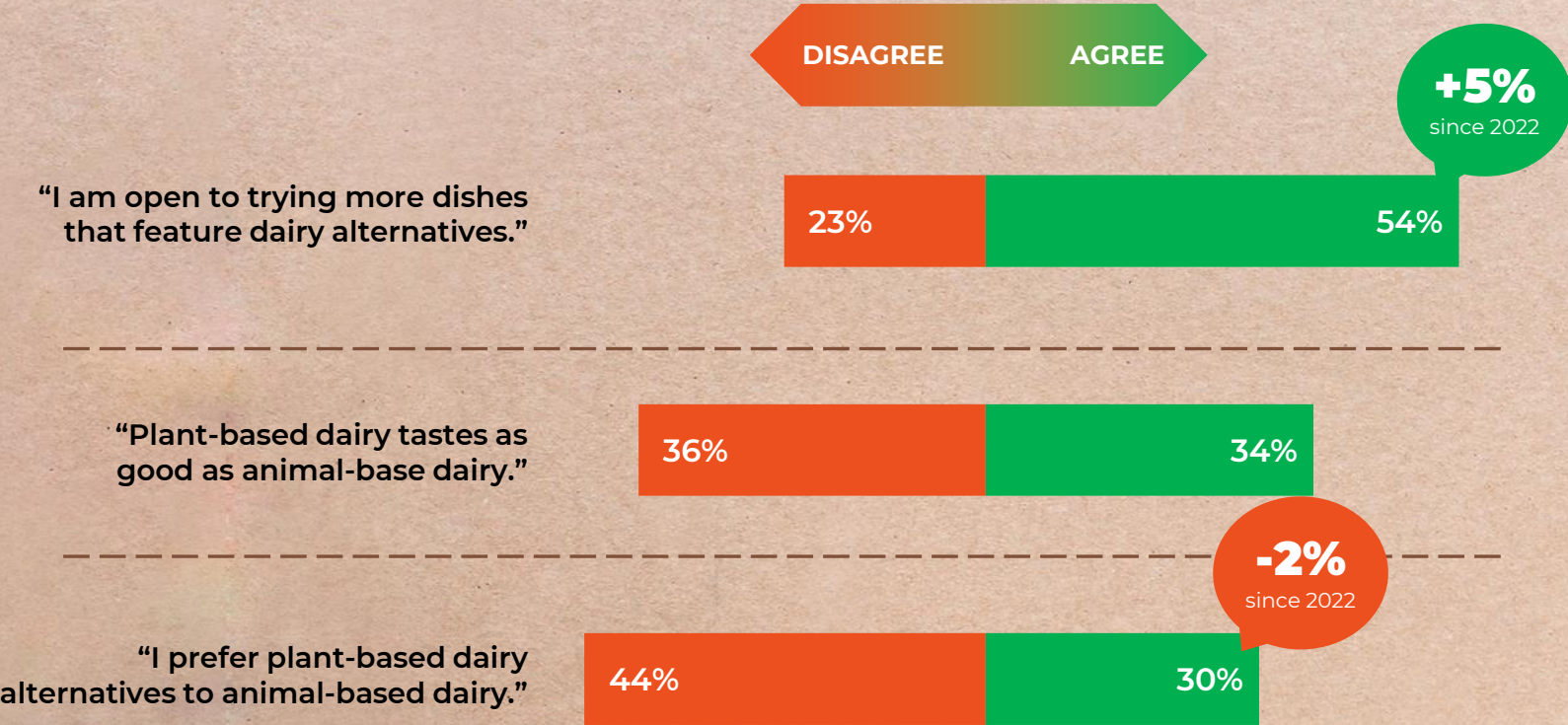
73% of high-income HHs (\$100K+)



Although consumers are not yet more likely to prefer plant-based dairy alternatives to animal-based options, they are open to them.

Twice as many say they are open to trying dishes with dairy alternatives as say they are not open. Consumers remain split on whether plant-based dairy tastes as good as animal-based dairy.

PLEASE TELL US YOUR LEVEL OF AGREEMENT WITH EACH OF THE FOLLOWING STATEMENTS. (N=1,501)

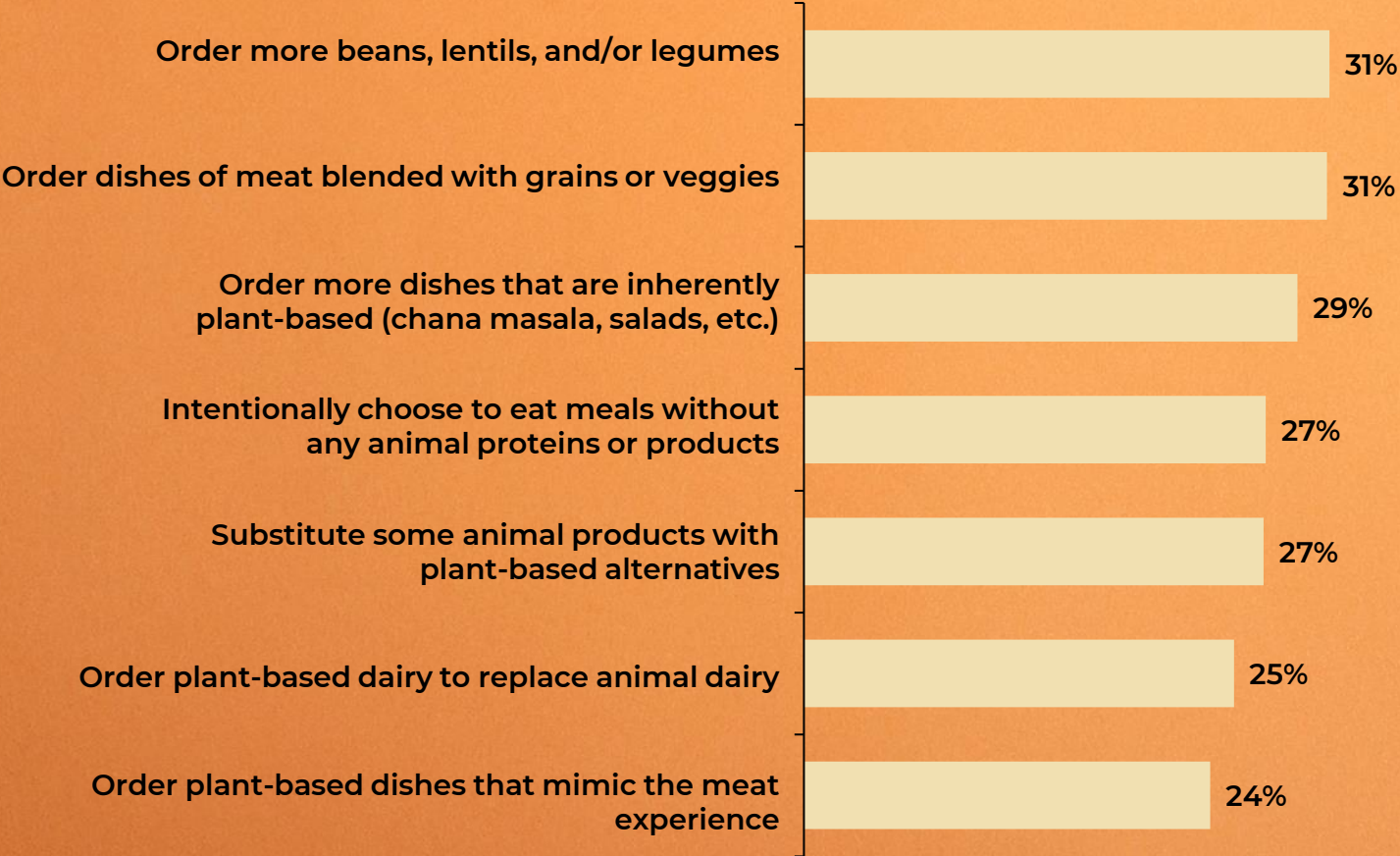


SOURCE: 2023 Plant-Forward Opportunity Report | * top two boxes: agree completely & somewhat; bottom two boxes: disagree completely & somewhat

In the coming year, consumers are most likely to order more dishes that are inherently plant-forward or contain blended / hybrid protein options.

Although ordering of plant-based dishes that mimic meat has the lowest likelihood in the next year, nearly one quarter of all consumers say they are likely to order these types of offerings in the next year.

HOW LIKELY ARE YOU TO DO THE FOLLOWING IN THE NEXT YEAR? (TOP-2, 5 PT. SCALE; WHEN DINING AT A RESTAURANT) (N=1,501)



Younger consumers are the most likely demographics to make plant-based choices at restaurants and foodservice outlets in the next year.

HOW LIKELY ARE YOU TO DO THE FOLLOWING IN THE NEXT YEAR? (TOP-2, 5 PT. SCALE; WHEN DINING AT A RESTAURANT) (N=1,501)

	Total	Male	Female	Meat Limiters*	Meat Eaters	Students	Non-Students	Gen Z	Millennial	Gen X	Boomer+
	n=1,501	735	755	415	1,086	176	1,325	191	422	400	488
Order more beans, lentils, and/or legumes	31%	33%	29%	45%	26%	46%	29%	36%	40%	30%	22%
Order dishes of meat blended with grains or veggies	31%	31%	31%	40%	27%	47%	29%	37%	39%	29%	23%
Order more dishes that are inherently plant-based (chana masala, salads, etc.)	29%	31%	27%	45%	23%	48%	26%	36%	38%	26%	21%
Intentionally choose to eat meals without any animal proteins or products	27%	29%	25%	44%	21%	45%	25%	35%	36%	26%	17%
Substitute some animal products with plant-based alternatives	27%	30%	23%	42%	21%	45%	25%	35%	37%	24%	18%
Order plant-based dairy to replace animal dairy	25%	28%	23%	37%	21%	45%	23%	37%	35%	24%	14%
Order plant-based dishes that mimic the meat experience	24%	29%	19%	37%	19%	43%	21%	31%	36%	20%	14%

statistically higher statistically lower

SOURCE: 2023 Plant-Forward Opportunity Report | * vegan, vegetarian, pescatarian, & flexitarian consumers



Future interest in plant-forward options is similar across dayparts.

Though it ticks up just slightly later in the day, all dayparts are equally worthwhile for restaurants and other foodservice outlets to consider examining their plant-forward menu items.

HOW LIKELY ARE YOU TO DO THE FOLLOWING IN THE NEXT YEAR? (TOP-2, 5 PT. SCALE) (N=1,501)

26%

are very likely to order **MORE PLANT-FORWARD LUNCHES** from restaurants in the next year

27%

are very likely to order **MORE PLANT-FORWARD DINNERS** from restaurants in the next year

25%

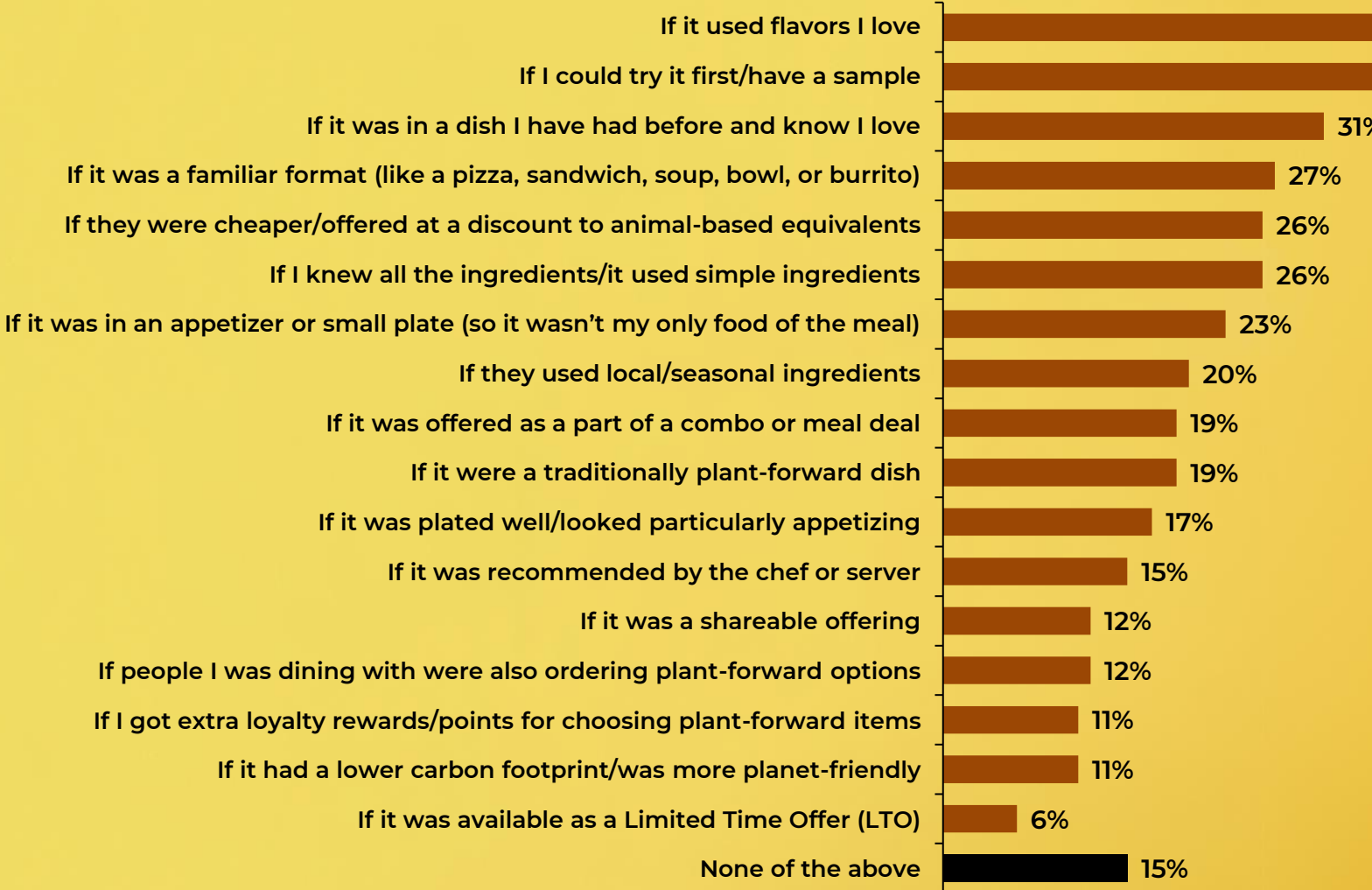
are very likely to order **MORE PLANT-FORWARD BREAKFASTS** from restaurants in the next year



Reducing “risk” for consumers is key to plant-forward dish trial.

The best way to do that is to use flavors consumers love, offer up samples, and stick to familiar dishes and formats. Notably, sustainability is not an important motivator for ordering plant-forward when dining out.

THINKING ABOUT DINING OUT AT A RESTAURANT, WHAT WOULD ENCOURAGE YOU TO SELECT A PLANT-FORWARD OPTION FROM THE MENU? (N=1,501)

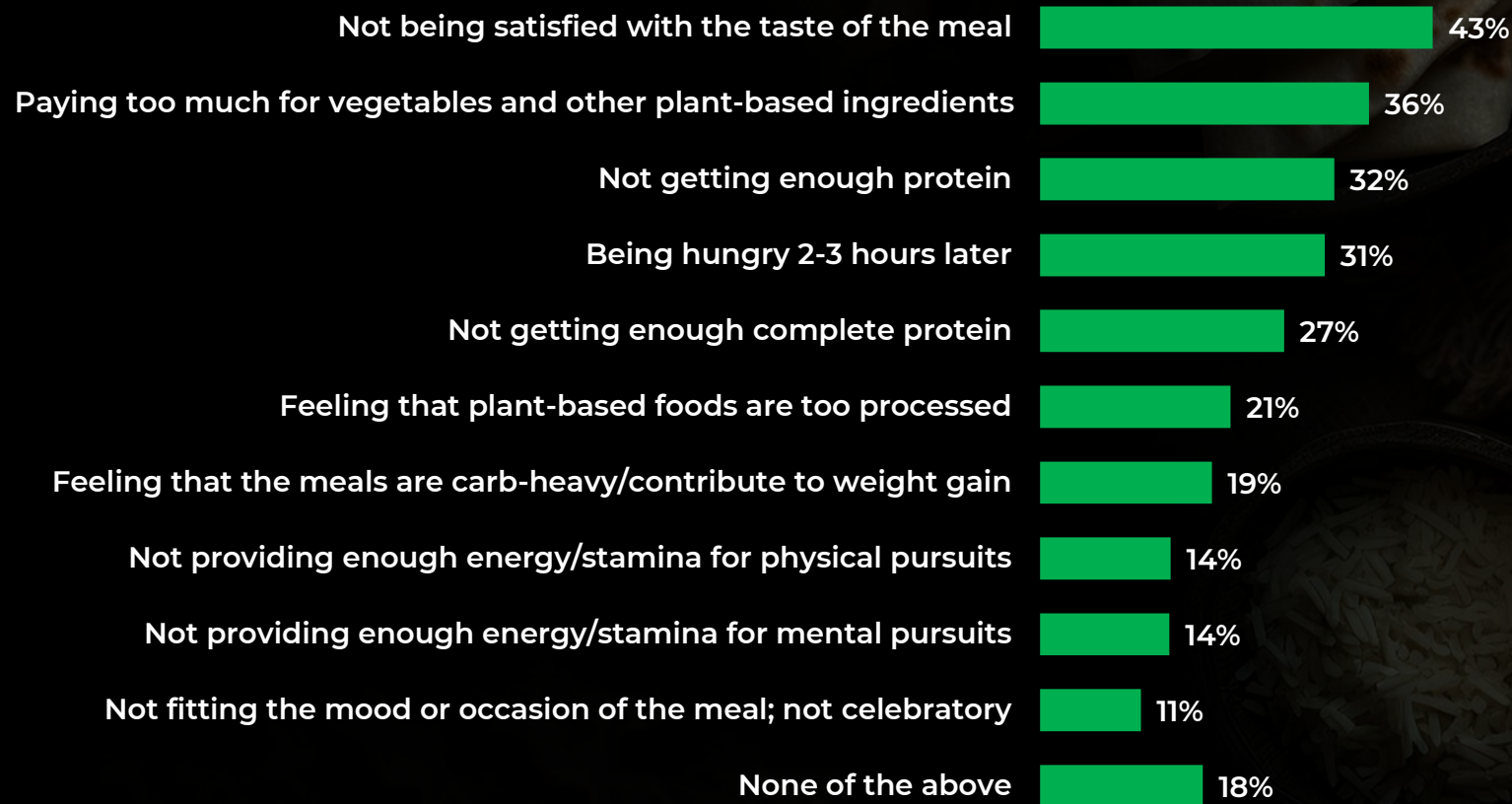


SOURCE: 2023 Plant-Forward Opportunity Report

Taste satisfaction is the top barrier to eating less meat when dining at restaurants.

Taste concerns can be alleviated by sticking to the most well-loved flavors. Another top worry when getting plant-forward options when dining out is getting enough protein and being hungry shortly after a meat-free/reduced meal. Given that consumers generally view plant-based items as a good source of protein, restaurants and other foodservice operators may be well-served to highlight the protein elements in their plant-forward dishes with special call-outs or detailed ingredient mentions.

WHICH OF THE FOLLOWING ARE CONCERNS YOU HAVE WITH EATING LESS MEAT AND MORE PLANT-FORWARD FOOD AT RESTAURANTS?



Taste satisfaction is *increasingly* a worry, and restaurants should emphasize the flavors of their dishes.

Descriptors that focus on preparation methods, sauce profiles, and detailed ingredient lists can help alleviate these fears.

Dishes with less meat are also increasingly facing worries about not being filling enough and restaurants should make sure that portion sizes are appropriate, and offerings are composed with the right mix of ingredients to make them “complete” dishes in consumers’ eyes.

WHICH OF THE FOLLOWING, IF ANY, ARE CONCERNS YOU HAVE WITH EATING LESS MEAT IN RESTAURANTS AND MORE VEGETABLES, WHOLE GRAINS, LEGUMES, AND OTHER PLANT-BASED FOOD? (N=1,501)

	2023	2022	DIFF
Not being satisfied with the taste of the meal	43%	28%	15%
Paying too much for vegetables and other plant-based ingredients	36%	40%	-4%
Not getting enough protein	32%	27%	6%
Being hungry 2-3 hours later	31%	26%	5%
Not getting enough complete protein	27%	18%	9%
Feeling that plant-based foods are too processed	21%	18%	3%
Feeling that the meals are potentially carbohydrate heavy/contribute to weight gain	19%	18%	1%
Not providing enough energy/stamina for physical pursuits	14%	16%	-2%
Not providing enough energy/stamina for mental pursuits	14%	14%	0%
Not fitting the mood or occasion of the meal; not celebratory enough	11%	30%	-19%
None of the above	18%	21%	-3%

Older consumers are more concerned with the taste of plant-forward offerings, while younger consumers are more likely to be concerned about getting enough energy.

WHICH OF THE FOLLOWING, IF ANY, ARE CONCERNS YOU HAVE WITH EATING LESS MEAT IN RESTAURANTS AND MORE VEGETABLES, WHOLE GRAINS, LEGUMES, AND OTHER PLANT-BASED FOOD? (N=1,501)

	Total <i>n=1,501</i>	Male	Female	Meat Limiters*	Students	Gen Z	Millennial	Gen X	Boomer+
Not being satisfied with the taste of the meal	43%	40%	47%	35%	27%	35%	35%	47%	50%
Paying too much for vegetables and other plant-based ingredients	36%	37%	36%	40%	36%	30%	32%	42%	37%
Not getting enough protein	32%	32%	33%	33%	38%	38%	32%	31%	32%
Being hungry 2-3 hours later	31%	30%	32%	27%	35%	37%	32%	36%	25%
Not getting enough complete protein	27%	27%	26%	25%	27%	23%	28%	28%	27%
Feeling that plant-based foods are too processed	21%	20%	22%	24%	21%	18%	19%	23%	23%
Feeling that the meals are potentially carbohydrate heavy and may contribute to weight gain	19%	16%	22%	22%	23%	17%	21%	14%	22%
Not providing enough energy/stamina for physical pursuits (exercise, sports)	14%	17%	12%	15%	20%	21%	18%	14%	9%
Not providing enough energy/stamina for mental pursuits (studying, long projects)	14%	16%	13%	16%	24%	20%	19%	13%	9%
Not fitting the mood or occasion of the meal; not celebratory enough	11%	12%	10%	13%	16%	12%	14%	12%	8%
None of the above	18%	19%	17%	16%	16%	18%	18%	14%	21%

statistically higher statistically lower

SOURCE: 2023 Plant-Forward Opportunity Report | * vegan, vegetarian, pescatarian, & flexitarian consumers

Key Takeaways Recap

In 2023, interest in plant-based eating is steadily climbing across the general population. Although vegan and vegetarian consumers do skew to Gen Z, it turns out that Boomers are getting in on eating plant-forward and are the most likely of all generations to consider themselves flexitarian. Millennials, students, and foodies are leading the plant-forward eating charge, and over half the general population say they are open to eating more plant-forward.

What's the driving force behind this steady incline? For two-thirds of consumers, health is the primary motivator behind plant-based and plant-forward eating, especially among Gen X and Boomers. Gen Z, meanwhile, are more likely to eat plant-forward to save money, help the planet, or support other moral causes. Most notably, meat eaters are more likely to eat plant-forward items for cost reasons, so leveraging lower-priced menu items or offering discounts may push them to make the plant-based swap.

Cost, in general, is a salient barrier, as most consumers expect plant-based items to cost more than their animal-based equivalents – especially plant-based meat analogs. This expectation that plant-based costs more holds across all menu categories, from entrée to desserts. Although 29% of the general population say they are open to paying more for plant-based restaurant offerings, that willingness will vary depending on the menu item. When strategizing around menu prices, foodservice operators should be thoughtful of how they price dishes that simply substitute animal-based items for plant-based equivalents.



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Key Takeaways Recap (continued)

Despite their wariness over costs, consumers generally regard plant-based items quite favorably. Plant-based protein gets high marks for being healthy, sustainable, tasty, and nutritious, though there's still a ways to go before most of the public will prefer them over animal proteins. Consumers may need to spend more time with these offerings, as increased familiarity is usually followed by increased appeal and preference. In that regard, over a quarter of consumers – especially Gen Z and Millennials – are already expecting to order more plant-forward dishes from restaurants and foodservice outlets next year.

What plant-forward offerings are consumers interested in most? In the coming year, nearly one-third of consumers plan to order more menu items with beans and legumes, as well as dishes that are inherently plant-forward, like chana masala or salads. Consumers are equally interested in hybrid proteins that blend meat with plant ingredients. Dishes that mimic meat, however, rank lowest compared to all other plant-forward offerings (24% are interested in ordering more next year), so leaning more into whole-plant dining may be a more fruitful near-term tactic for foodservice operators.

No matter what plant-based offering is on the table, taste and familiarity are the most important attributes *and* the most efficient ways to incentivize consumer trial. Nearly half of consumers will try a plant-based dish if it contains familiar flavors, while over a quarter will be swayed if they recognize the dish or format. Conversely, skeptics worry that plant-forward dishes won't taste as good or be as filling as animal-based equivalents. To assuage these fears and maximize appeal, foodservice operators should, in a sense, focus on the basics, like emphasizing the flavor profiles of dishes with vivid descriptors, and composing dishes with the right mix of ingredients to make them “complete” in consumers' eyes.



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