

SHIFTING BEHAVIORS TOWARD PLANT-FORWARD FOODS: A TOOLKIT FOR FOOD BUSINESSES

INTRODUCTION

A key lever to achieve healthy and sustainable diets is to increase the share and diversity of plant-based foods within products and meals, providing a variety of appealing and nutritious intake forms for consumers.

WBCSD's FReSH project drives food system transformation by developing solutions that support healthy people on a healthy planet, including the promotion of plant-forward diets. It works with member companies to address the dimensions of availability, accessibility, affordability, desirability and convenience of products across the whole range of nutrient-rich plant categories.

What are plant-forward diets, and why should we promote them?

A plant-forward diet is comprised of foods mainly sourced from plants but can still contain some animal products. It includes a significant share and diversity of fruits, vegetables, whole grains, nuts, and pulses, making a plant-forward diet both nutrient-rich and better for the environment than diets that incorporate high levels of meat and dairy products.

Moving from current diets to more plant-forward diets can substantially benefit human health, averting about 10.8–11.6 million deaths per year, a reduction of 19–23.6%.¹ Shifting to plant-based diets could reduce 30% of food-based greenhouse gas (GHG) emissions globally.² Beyond sustainability benefits, there is a financial case for action to promote plant-based diets as well: The global plant-based food market is expected to grow at a Compound Annual Growth Rate (CAGR) of 11.9% from 2020 to 2027 to reach USD \$74.2 billion by 2027.³

About the plant-forward foods framework and toolkit

FReSH and its members developed a plant-forward foods framework and toolkit in 2022, using the Behavior-Centered Design (BCD) methodology from the Rare Center for Behavior and the Environment. The scope of the examined consumer markets focused on western markets (North America and Europe) and also on East Asian markets (China and Japan).

This document summarizes key learnings from this rigorous initiative that included desk research, stakeholder interviews, and member company workshops.

The insights outlined in the document demonstrate how different types of consumers think about their food consumption choices. Each insight is linked to a response intervention that fits within the six levers for behavior change.

Companies can use these recommended response interventions in how they interact with consumers to promote plant-forward products. More specialized analysis and recommendations are offered for retailers, food service providers, and consumer brands below as well, based on the unique hurdles and opportunities faced by those types of companies in particular.

Companies across the food and agriculture sector can leverage learnings in this toolkit summary to shift consumer behavior toward plant-forward diets. It includes insights from desktop research, as well as recommended actions across the six levers for behavior change, based on consumer type and company type.

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TOP PLANT-FORWARD BEHAVIOR CHANGE INSIGHTS FROM THE RESEARCH

A desktop review of over 160 studies and journal articles, as well as member company research, gleaned the following top insights related to how food systems stakeholders should understand various aspects of consumers' dietary preferences and habits. It is critical to consider these in designing impactful interventions to promote plant-based food.

1. Food is about providing gratification for us and the people we love. Tastiness and effortless wins.
2. The tension point between taste and health is more salient in western cultures.
3. It's all about reducing our consumers' fear of failure and enabling great food experiences.
4. Food is personal and familiar, but food impacts and hidden costs are largely not on people's radars.
5. Eating meat has strong associations to wealth, prosperity and even masculinity across cultures.
6. Generations Z & Y are the most informed and conscious about the environment and animal welfare.
7. There is increasing curiosity to learn more about the benefits of plant-based proteins.
8. Clean label is becoming increasingly important to flexitarians' decision to adopt plant-forward meat alternatives.
9. Beans have a low value perception and a value reframe might be one of the industry's biggest opportunities.
10. The success of plant-forward foods is often in the hands of chefs, and their choice to celebrate plant-forward foods, or not.
11. Some people don't buy meat analogues, but they buy meat-free tasty dishes.
12. Integration of plant-based foods in mainstream dishes, instead of segregating 'vegetarian' or 'vegan' dishes is best.
13. Plant-forward retail lunch is largely untapped in Europe and the United States.
14. Cost barriers of plant-forward foods depends on how people define plant-forward (meat analogues versus vegetable-based) and cost perception. The perception that plant-forward foods are more expensive is not always accurate.
15. Lower-income populations in western countries, particularly in the United States, need plant-forward, shelf-stable solutions.
16. Intention to eat more plant-forward foods does not equate to action.
17. Consumers make most food decisions using their brain's 'System 1' thinking (intuition and instinct), versus 'System 2' (rational thinking and analysis).

MOTIVATORS FOR MAKING PLANT-FORWARD FOOD CHOICES

Table 1 demonstrates the motivations for consumer groups and food industry actors to make plant-forward choices in their eating decisions and portfolio offerings, respectively. This initiative primarily looked at western contexts, but also looked at East Asia. Asia-specific findings are noted in the table.

Table 1: Motivations for consumer groups and food industry actors to make plant-forward choices

	Flexitarians	Flexitarians (Generation Z)	Traditional Meat Eaters	Retailers	Food service operators	Food brands
Taste	●	●	●			
Price	●	●	●			
Convenience	●	●	●			
Safety and trust	●	●	●			
Quality	●	●	●			
Weight (kcal)	●	●	●			
Health and wellness	●	●				
Health (doctor-prescribed)			●			
Freshness	●	●				
Animal welfare	●	●				
Environment	●	●				
Growth of plant-forward foods				●	●	
Attract new customers				●	●	●
Retain current customers						●
Deliver on corporate social responsibility and sustainability commitments				●	●	●
Portfolio premiumization						●

- Primary motivator
- Secondary motivator
- Asia specific primary motivator

BARRIERS FOR MAKING PLANT-FORWARD FOOD CHOICES

Table 2 demonstrates the barriers to consumer groups and food industry actors making plant-forward choices in their eating decisions and portfolio offerings, respectively.

Table 2: Barriers to consumer groups and food industry actors making plant-forward choices

	Flexitarians	Flexitarians (Generation Z)	Traditional Meat Eaters	Retailers	Food service operators	Food brands
Taste*	●	●	●			
Price to consumer*	●	●	●			
Cost of meat analogues and/or protein innovation					●	
Attachment to meat	●	●	●		●	●
Choice	●	●				
Inconvenience	●	●	●			
Self-efficacy (cooking knowledge)	●	●	●	●		
Negative health perception			●			
Skepticism		●				
Customers' habits & expectations				●		
Customers' value perception				●		
Existing product assortment				●		
Metrics to measure success				●	●	
Customers' previous plant-forward experiences				●		
Chefs' right balance of familiarity vs experimentation					●	
Legacy brands' 'hero products'						●
Difficulty of differentiation with new products						●
Disconnect between corporate social responsibility/sustainability commitments and hero brands' positioning						●

- Primary barrier
- Secondary barrier

INSIGHTS AND SAMPLE INTERVENTIONS

The [Rare Center for Behavior and the Environment](#)'s BCD methodology is an approach that blends insights, methods, and tools from behavioral science and design thinking to build breakthrough solutions to environmental and social challenges. The BCD framework incorporates six levers for behavior change and emphasizes the need to use multiple levers to influence actions. The six levers include: social influences, information, emotional appeals, rules and regulations, choice architecture and material incentives. As a part of the plant-forward foods behavior change initiative, member companies examined how the six levers apply across three consumer types: flexitarians, flexitarians in Generation Z and traditional meat eaters, and also across food companies: retailers, food service providers and food brands.



Source: RARE Center for Behavior and the Environment

MATERIAL INCENTIVES:

Increasing or decreasing costs, time, or effort for doing a behavior

CHOICE ARCHITECTURE:

Changing the context in which choices are made

RULES & REGULATIONS:

Enacting rules that promote or restrict a behavior

SOCIAL INFLUENCES:

Leveraging the behavior, beliefs, and expectations of others

INFORMATION:

Providing information about what the desired behavior is, why it matters, and how to do it

EMOTIONAL APPEALS:

Using emotional messages to drive behavior



FLEXITARIANS

- Behavior-centered insights from the research
- Behavior-centered response interventions



"Eating more plants and less meat is better for my family's health and mine. I am often reading about this topic online."

Educate, engage and promote through wellness influencers.



"I believe that plant-based foods are good for me and my family, but I also don't want to miss on important nutrients found in meat and dairy."

Educate, engage and promote trial through the voice and actions of the food workers working the store.



"I care about providing my family with good food that they will enjoy. While I know more plant-forward foods would be good for my family, I'm not always sure they will enjoy them."

Build plant-forward self-efficacy and confidence with flexitarians in charge of shopping and cooking.



"I look for familiar and tasty foods that are affordable, and I know my family will like, but I don't go into the store looking for certification labels."

Increase choice, visibility and visual displays for plant forward alternatives in high-traffic store and food online store sections.



"I care about not blowing up my food budget when I go shopping and that everyone is happy at home with the foods I buy. My current food choices go a long way to feed my family. I wish plant-based foods were more affordable."

Targeted price discounting for flexitarians.



FLEXITARIANS - GENERATION Z

- Behavior-centered insights from the research
- Behavior-centered response interventions



"My friends and I follow several LOHAS influencers (lifestyle of health and sustainability)"

LOHAS education and influencer programming.



"I believe that eating more plants and less meat would be healthier for me, but I don't know as much as I would like to about plant-based proteins and how to cook them to make informed choices."

Plant protein campaign to educate on benefits of different plant sources (including beans), accompanied by recipes and cooking tips.



"I look for tasty foods that are familiar, affordable, fit my lifestyle and make me feel great."

Get behind social plant-forward movements within Gen Z flexitarians through partnerships.



"I look for tasty and familiar foods that fit my lifestyle, and if there is an option for healthy and sustainable even better."

Disrupt current choice architecture for Gen Z flexitarian consumers increasing the number of plant-forward choices and highlighting the positive benefits.



"I care about not blowing up my food budget when I go shopping. I always try to get good value for my money, but I also don't mind paying a little bit more sometimes for foods that are fresh, local and sustainable."

Price trial incentives alongside animal welfare and environmental education.



TRADITIONAL MEAT EATERS

- Behavior-centered insights from the research
- Behavior-centered response interventions



"I have heard that eating more plants and less meat could help me lower my weight, but that kind of diet is unrealistic for me."

Targeted influencer campaigns with focus on taste, ease, calories, and normalization, associating plant-forward eating to prosperity.



"I don't see any problems with eating meat or other animal products which are naturally tasty and healthy."

Eliminate the environmental narrative and focus on (1) elevating the taste experience and (2) maximizing taste and calories through plant-based pairings



"I care about providing my family with good food that they will enjoy. While I know more plant-forward foods would be good for my family, I'm not always sure they will enjoy them."

Deliver the benefit of 'food my family will love' by facilitating delicious and affordable plant-forward experiences that delight everyone in the family.



"If I knew plant-based meats tasted just as good as my usual meat and the price was lower, I would probably give them a try."

Advocacy to shift government subsidies from traditional food commodities into new sources of climate-friendly plant-based protein sources.



"If I have a choice of a dish with meat and one without it, I will always choose the dish with meat unless there is an option that looks just as good and has less calories."

Taste and calorie benefit call outs at point of sale to influence the choice architecture journey.



"I care about not blowing up my budget when I go shopping or out to eat. I like to see everyone in the family happy with the foods I get for them. Meat is a safe choice."

Targeted trial strategies for plant-forward taste winners to overcome taste perception.



RETAILER

- Behavior-centered insights from the research
- Behavior-centered response interventions



Social media is full of food influencers sharing mouth-watering recipes and helping people of all backgrounds feel more comfortable about experimenting with foods and recipes.

[Micro influencer partnerships in strategic cities linking flexitarians with in-store and out-of-store retailer plant-forward experiences.](#)



We know greater transparency about our foods would help our shoppers make better decisions for themselves, whether it's about environmental tradeoffs, calories, or health benefits but most shoppers are on auto pilot when they come into the store.

[Plant-forward awareness campaign in the high-traffic periphery of the store.](#)



Three aspects that enhance people's shopping experience include seeing and touching products, having a productive trip and receiving positive customer service.

[Personalized in-store human and digital support strategically located in key areas of the store to support positive 'plant-forward' experiences.](#)



Subsidies and tax incentives towards plant-forward foods and meat analogues would make it more attractive for cost-sensitive shoppers to try and adopt plant-forward products.



Shoppers have their shopping routines operating from instinct and habit when they shop; When looking for lunch options, they choose from the what's available in the deli.

[Nudging shoppers before they go on auto pilot as they enter the store and placement of plant-forward foods in high-visibility and high-traffic deli areas.](#)



We know our customers are looking to get good value for their money and that many of them think that choosing plant-based options will be more expensive for them.

[Targeted price discounts on strategic offerings for meat eaters and flexitarians to incentivize trial.](#)



FOOD SERVICE

- Behavior-centered insights from the research
- Behavior-centered response interventions



Our staff knows to make our guest experience a priority and we love it when our guests, particularly Gen Y and Z, post photos and rating reviews about their experience with us and our menus on social media.

[Create Instagramable food.](#)



People expect us to deliver convenience foods at great speeds and the amount of time they must read information about our menus or ingredients is very limited. So, the simpler and more intuitive, the better.

[Visual messaging on conveying taste, value and health.](#)



Our guests rate their experience with us based on their perceived level of enjoyment, which includes how much we were able to surprise their senses and elevate their eating experience.

[Use plant-forward menu descriptors to instill trust and appeal, e.g., chef recommendations, seasonal, fresh; establish a mechanism for getting customer feedback to improve the experience .](#)



Subsidies and tax incentives for plant forward foods — for nutrient-dense plant ingredients and meat analogues — would help chefs create healthy and delicious plant-forward menus at parity prices to meat offerings.



People are significantly more open to experiment with new dishes when they eat out, but menu choices still need to deliver on freshness, familiar tastes, high quality, and budget expectations.

[Tweak familiar dishes in the menu to make them more plant-forward and more delicious.](#)



Our guests are willing to try new offerings that look very tasty and relatively familiar in shape/form if the price is in line with other standard menu choices.

[Lead the plant-forward experience with meat-free plant-forward food vs. the more expensive meat analogue alternatives.](#)



CONSUMER BRANDS

- Behavior-centered insights from the research
- Behavior-centered response interventions



Consumers' and influencers' experiences offline can translate into powerful online reviews of the brand; In many cultures, eating meat is associated with wealth and prosperity.

Build a digital brand that bakes in plant-forward lifestyle content in programming, associating plant-forward eating with prosperity.



Consumers expect brands to be transparent, authentic and to have purpose, but there is also great skepticism around corporate messaging, especially with Gen Y & Z.

'Indulge' labeling and surprising facts on plant-forward foods and their health benefits.



People fall in love with brands that consistently listen to them, cover their needs, align with their values and enhance their lifestyles.

Connect your consumers' lifestyle and product needs with strategic plant-forward solutions.



Brands must overcome the cost barrier for higher-cost plant forward ingredients and meat substitutes. Any federal incentives to help fund innovation and keep costs down would help scale up plant forward solutions and increase choice.



It's hard for brands to impose a choice architecture in traditional retail or food service as they are not the gatekeepers. This is different in e-commerce.

Focus on influencing choice architecture on e-commerce through online advertizing.



Majority of buyers shop out of habit and familiarity and will not consider trial of plant-forward foods for fear of failure unless they are reassured of the taste experience or incentivized to try at lower cost.

Targeted promotions and in-store sampling to flexitarians with blended meat/plant products that reduce the fear of failure.

CONCLUSION

Accelerating the shift towards plant-forward diets is a critical part of the transformation toward a healthy and sustainable food system. Food companies across the value chain can use the insights and recommended actions in this toolkit summary to shift consumers towards positive dietary changes. The FReSH project will continue to share new research, offer trainings, and explore best practice for promoting plant-forward diets with its member companies and across the food and agriculture sector. To get involved, contact Melanie Levine, Manager, Food & Agriculture, WBCSD, at levine@wbcسد.org.

REFERENCES

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ABOUT THE WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT (WBCSD)

WBCSD is the premier global, CEO-led community of over 200 of the world's leading sustainable businesses working collectively to accelerate the system transformations needed for a net zero, nature positive, and more equitable future.

We do this by engaging executives and sustainability leaders from business and elsewhere to share practical insights on the obstacles and opportunities we currently face in tackling the integrated climate, nature and inequality sustainability challenge; by co-developing "how-to" CEO-guides from these insights; by providing science-based target guidance including standards and protocols; and by developing tools and platforms to help leading businesses in sustainability drive integrated actions to tackle climate, nature and inequality challenges across sectors and geographical regions.

Our member companies come from all business sectors and all major economies, representing a combined revenue of more than USD \$8.5 trillion and 19 million employees. Our global network of almost 70 national business councils gives our members unparalleled reach across the globe. Since 1995, WBCSD has been uniquely positioned to work with member companies along and across value chains to deliver impactful business solutions to the most challenging sustainability issues.

Together, we are the leading voice of business for sustainability, united by our vision of a world in which 9+ billion people are living well, within planetary boundaries, by mid-century.

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