Alternative Protein Sources: Balancing Food Innovation, Sustainability, Nutrition, and Health

Food Forum Workshop
August 2022

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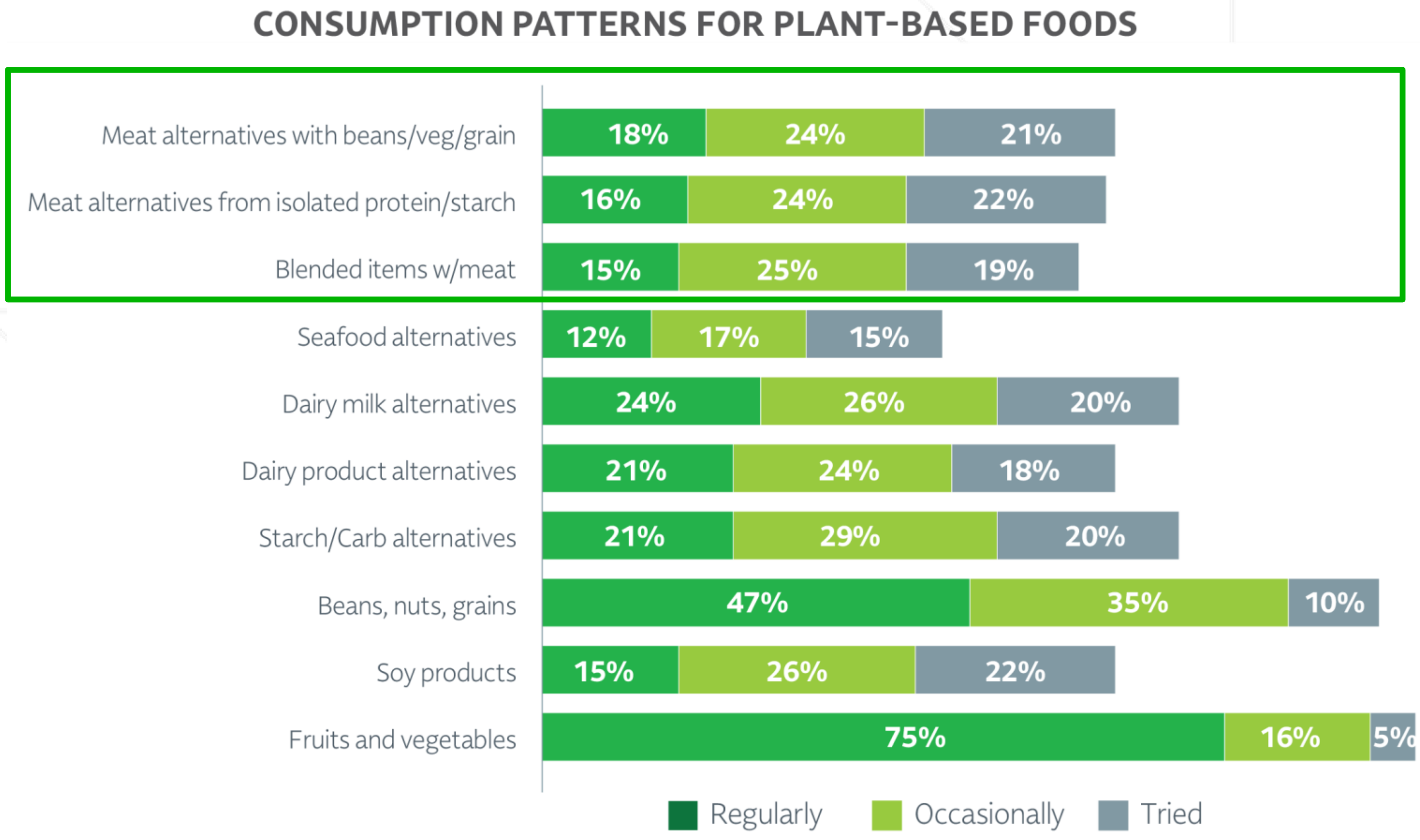
Disclosure: About NielsenIQ

- NielsenIQ, a global information services company, delivers the gold standard in **consumer and retail measurement**, through the most connected, complete, and actionable understanding of the evolving global, **omnichannel consumer**. Our data, **connected insights, and predictive analytics** optimize the performance of CPG and retail companies, bringing them closer to the communities they serve and helping to power their growth.
- NielsenIQ has operations in 90+ markets, covering more than 90% of the world's population.
- **Our clients include retailers and manufacturers across the consumer packaged goods industry, including both alternative protein and conventional companies.**

NielsenIQ
Total Wellness

Alternative meat/seafood consumption lowest of all plant-based foods

Consumers have varying views of plant-based, healthy most often cited



Source: FMI The Power of Plant-Based Foods and Beverages, 2022

Consumers finding “plant-based” across food and beverage products…

Dairy

Meat

Snacks

Frozen

Cereal & Condiment

https://progressivegrocer.com/plantx-debuts-plant-based-retail-concept-chicago

...and beyond food

Baby

Personal Care

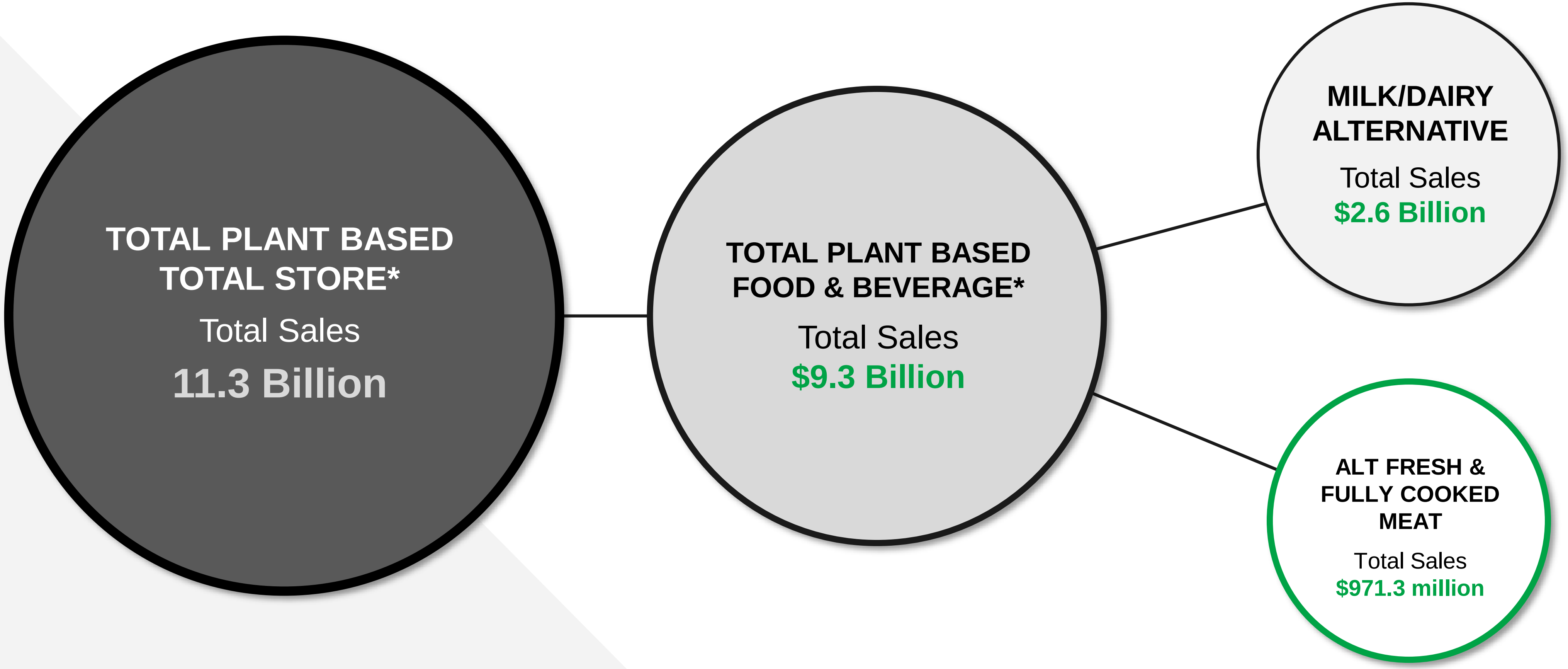
Household

Period Care

Pet

OTC

Lay of the land of plant-based and alternative proteins



*Does not include $88B in plant-based fruits and vegetables (fresh, canned and frozen)

Alt-Meat represents 1.2% of Total Fresh and Fully Cooked Meat

Alt-Meat is 38% price **premium** vs conventional

Source: NielsenIQ Retail Measurement Services, Syndicated data, Total Store; Total US xAOC; 52 weeks W/E 07/30/22

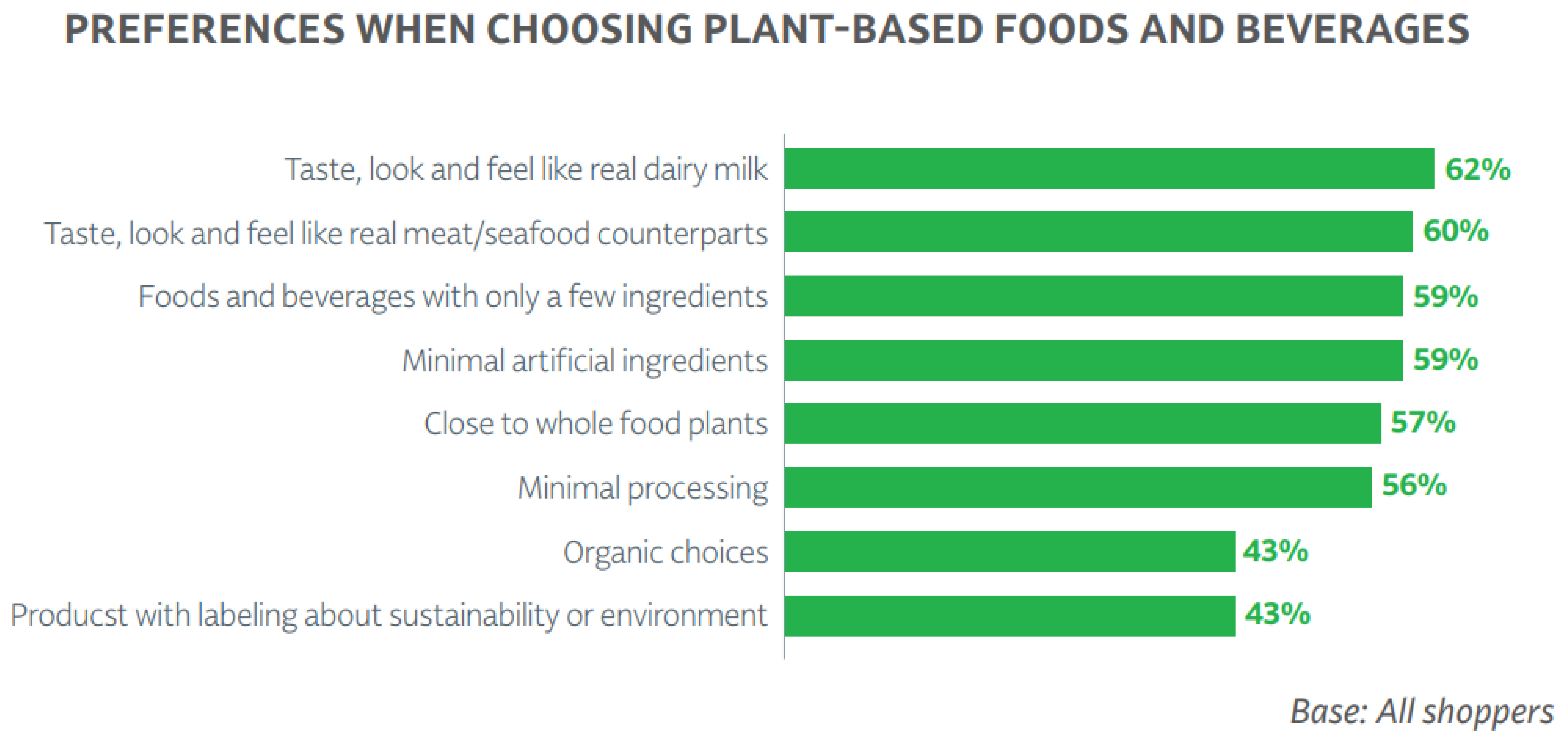
Plant-based showing growth across the store, with some declines in latest 52

Top 15 categories represent 91% of total plant-based sales

TOP 15 "PLANT-BASED" FOOD CATEGORIES	$ VOLUME	$ % C3YA	$ % CYA
MILK/DAIRY ALTERNATIVE	$2.6B	34.6%	6.8%
CREAMS AND NON-DAIRY CREAMER	$1.1B	74.2%	21.7%
BEVERAGES	$1.0B	49.6%	18.0%
FULLY COOKED MEAT	$720.2M	39.1%	4.0%
PREPARED FOODS	$588.8M	55.2%	2.1%
DESSERTS	$466.5M	34.3%	-0.6%
DIET AND NUTRITION	$471.2M	40.3%	15.1%
YOGURT	$355.3M	58.6%	8.5%
PROCESSED MEAT	$321.3M	56.3%	-4.1%
CHEESE	$278.1M	74.2%	4.1%
FRESH MEAT	$258.1M	206.5%	-6.0%
OILS/BUTTER/MARGARINE SPREADS/SUBSTITUTES	$147.3M	104.3%	9.3%
SALTY SNACKS	$97.4M	73.3%	8.6%
BREAD	$75.7M	50.0%	4.8%
PERFORMANCE NUTRITION	$58.6M	-12.8%	-10.0%
TOTAL OF TOP 15 CATEGORIES	**$8.5B**	**48.9%**	**8.1%**
#35 PLANT-BASED SEAFOOD	$10.9M	117%	25%

Source: NielsenIQ Retail Measurement Services, Syndicated data, Food & Beverage; Total US xAOC; 52 weeks W/E 07/30/22 vs YA and vs 3YA

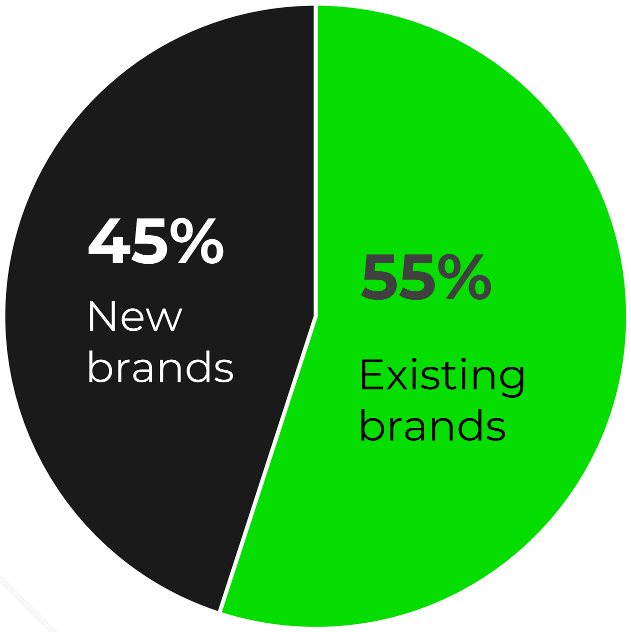
Consumers looking for realistic counterparts, natural and minimally processed



Source: FMI The Power of Plant-Based Foods and Beverages, 2022

Growth across existing and emerging brands, with evolving plant-based proteins

% of Total Plant-based Protein Dollar Growth[1]



126 Existing brands represent ~55% of total dollar growth
3,281 New brands represent ~45% of total dollar growth

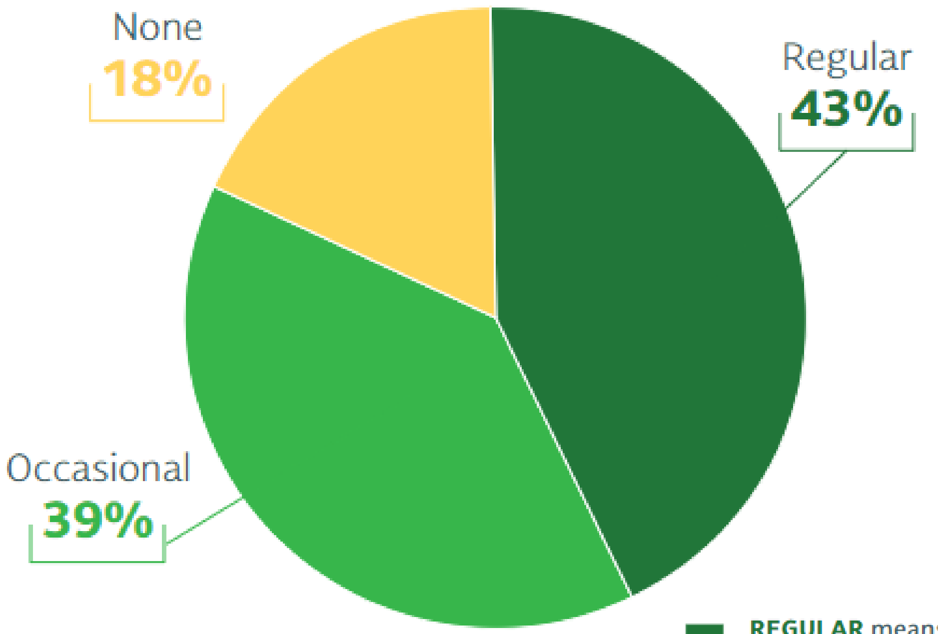
Trending plant-based proteins[2]

		$ % CYA	$ % C3YA	$ Volume	Share All Plant Based Protein
	Total Food & Beverage	**+9%**	**+25%**		
	All Plant Based Protein	**+8%**	**+25%**	**$101.3B**	
Proven trends	**Bean protein**	+8%	+26%	$63.5B	**63%**
	Soy protein	+9%	+26%	$41.9B	**41%**
	Oat protein	+8%	+22%	$13.8B	**14%**
Growing trends	**Pea protein**	+17%	+82%	$2.6B	**3%**
	Spirulina protein	+13%	+48%	$1.1B	**1%**
	Chia Seed protein	+14%	+44%	$791.5M	**1%**
Developing trends	**Hemp Seed protein**	+10%	+23%	$147.3M	**<1%**
	Chlorella protein	+14%	+28%	$74.4M	**<1%**
	Tempeh protein	+35%	+529%	$1.5M	**<1%**

1 – Source: NielsenIQ Retail Measurement Services, NielsenIQ Product Insight, powered by Label Insight, Total Store; Total US xAOC; 52 weeks W/E 11/27/21 vs 2YA,
2- NielsenIQ Retail Measurement Services, NielsenIQ Product Insight, powered by Label Insight, Food & Beverage; Total US xAOC; 52 weeks W/E 07/30/22 vs YA

Taste, health, nutrition top reasons for meat alternative consumption

Consumption of Animal Product Alternatives



REGULAR means eat at least one animal product alternative (meat, seafood or dairy) regularly

OCCASIONAL means eat at least one animal product alternative occasionally or tried once or twice

NONE means having never tried any animal product alternative

Why do you choose to eat
Among those who eat regularly or occasionally

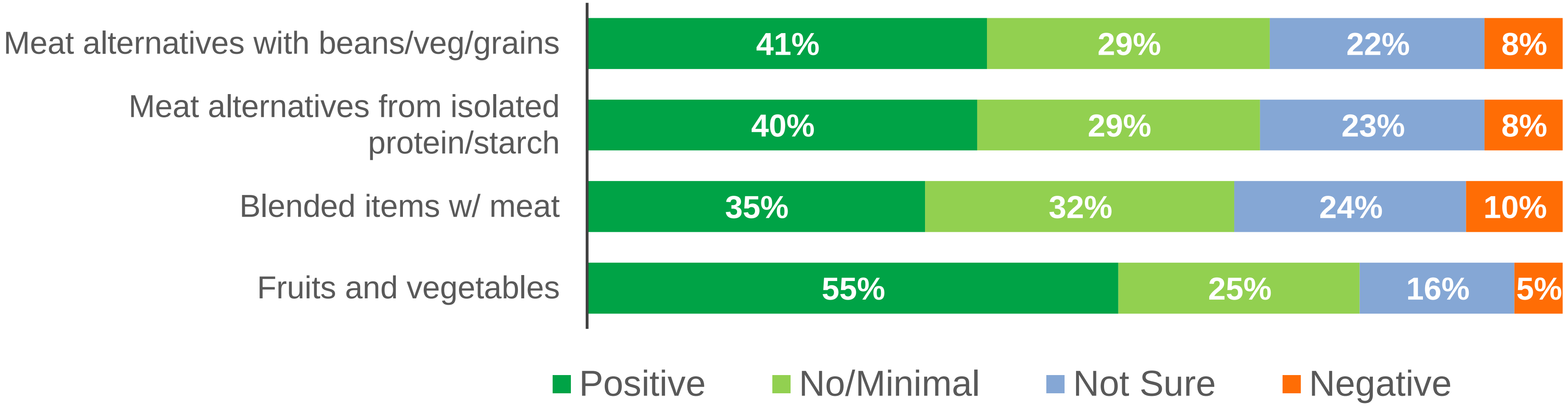
	MEAT ALTERNATIVES WITH BEANS/ VEG/GRAIN	MEAT ALTERNATIVES WITH ISOLATED PROTEIN/STARCH
Taste	43%	37%
Overall health	39%	36%
Nutrition benefits	36%	29%
Cutting back on meat	26%	23%
Experiment/try new things	22%	22%
Cost	22%	18%
Animal welfare	21%	21%
Concern about environment/climate	21%	20%
Concern about global food supply	19%	16%
Convenience	19%	17%
Shift in eating approach	16%	14%
Cutting back on dairy	15%	12%
Allergies/ Intolerances	11%	10%

Source: FMI The Power of Plant-Based Foods and Beverages, 2022

Environmental impact plays a part in alternative meat consumption

When thinking about the impact on the environment of the following, would you say each has...?

Among all shoppers



Ethical Farming Microculture

Sustainable farming methods that do not rely on industrial fertilizers and monocropping. These consumers **avoid animal-based products** because they're associated with unsustainable practices. But they **worry a plant-based diet is not enough** because unsustainable plant production.

Source: FMI The Power of Plant-Based Foods and Beverages, 2022
Motivebase, Consumer's Approach to Plant-based Foods and Beverages

Food and Beverage seeing growth in environmental and socially responsibility claims

	$ % C3YA	$ % CYA
Total Food & Beverage	**+24.7%**	**+8.7%**
Social Responsibility	+37.3%	+5.6%
Sustainable Farming	+20.9%	+3.5%
Environmental Sustainability	+28.7%	+9.0%
Sustainable Packaging	+20.1%	+6.5%
Animal Welfare	+34.1%	+7.2%
All Plant Based Protein	+22.5%	+7.3%

NielsenIQ Retail Measurement Services, NielsenIQ Product Insight, powered by Label Insight, Food & Beverage; Total US xAOC; 52 weeks W/E 08/06/22 vs 3YA and YA

Animal welfare key across the store

Animal welfare claims are among the top 5 drivers of purchase interest among global consumers in all categories

	Personal Care		Household Care		Grocery
1	**Animal welfare certified**	1	Manufactured in a sustainable way	1	Grown or raised in a sustainable way
2	**Cruelty free**	2	**Cruelty free**	2	**Certified humane raised and handled**
3	Manufactured in a sustainable way	3	Plant based	3	**Free range**
4	Sourced from partners offering fair wages	4	**Free of animal by-products**	4	Sourced from partners offering fair wage
5	**Free of animal by-products**	5	Forest Stewardship Council (FSC) certified	5	**Hormone free**

"Products must have this guarantee now. Animal welfare has to come to the top of the list."
- UK Consumer

"Treating animals well is an important step in preserving the environment."
- Brazilian Consumer

"A product that was not tested on animals would reduce suffering in this world."
- German Consumer

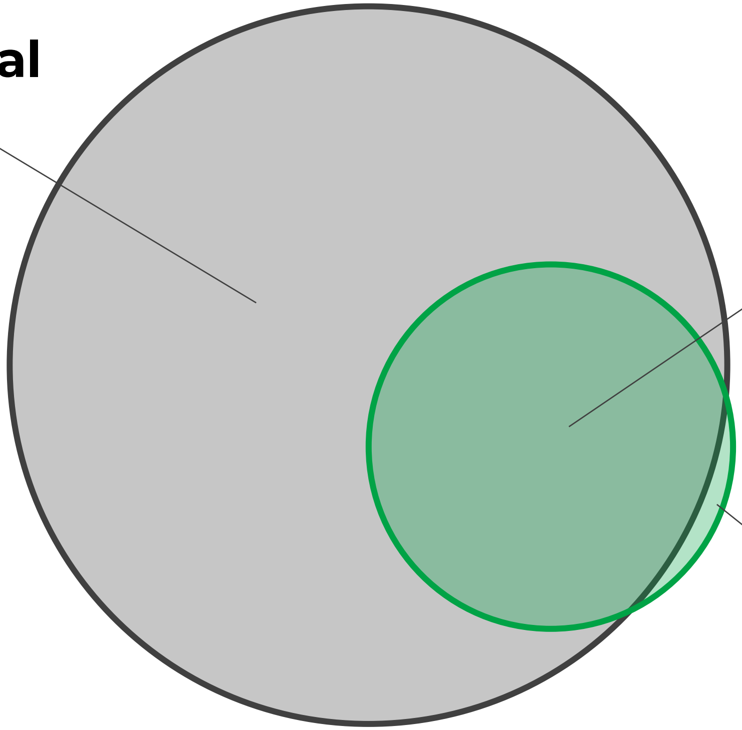
Based on relative appeal of claims gathered during optimization among global consumers
BASES Optimizer Study on Sustainability Claims and Consumer Motivations (2021); data based on relative appeal of claims gathered during optimization within the United States, United Kingdom, Germany, Brazil and China

Flexitarianism is key element of alternative meat consumption

21% of Meat buying HH's buy both Traditional Meat and Meat Alternatives

Only Conventional Meat

HH = 78%
$ Vol = 76%



Buy both

HH = 21%
$ Vol = 23%

Only Meat Alternatives

HH = 1%
$ Vol = <1%

Total Meat:
Fresh Meat
Fully Cooked Meat
Seafood

Heavy Meat Alternative Buyer

Asian and a slightly over indexed with Black

Skew slightly to **larger households** (3+ persons)

Young transitionals and **Older Bustling Families**

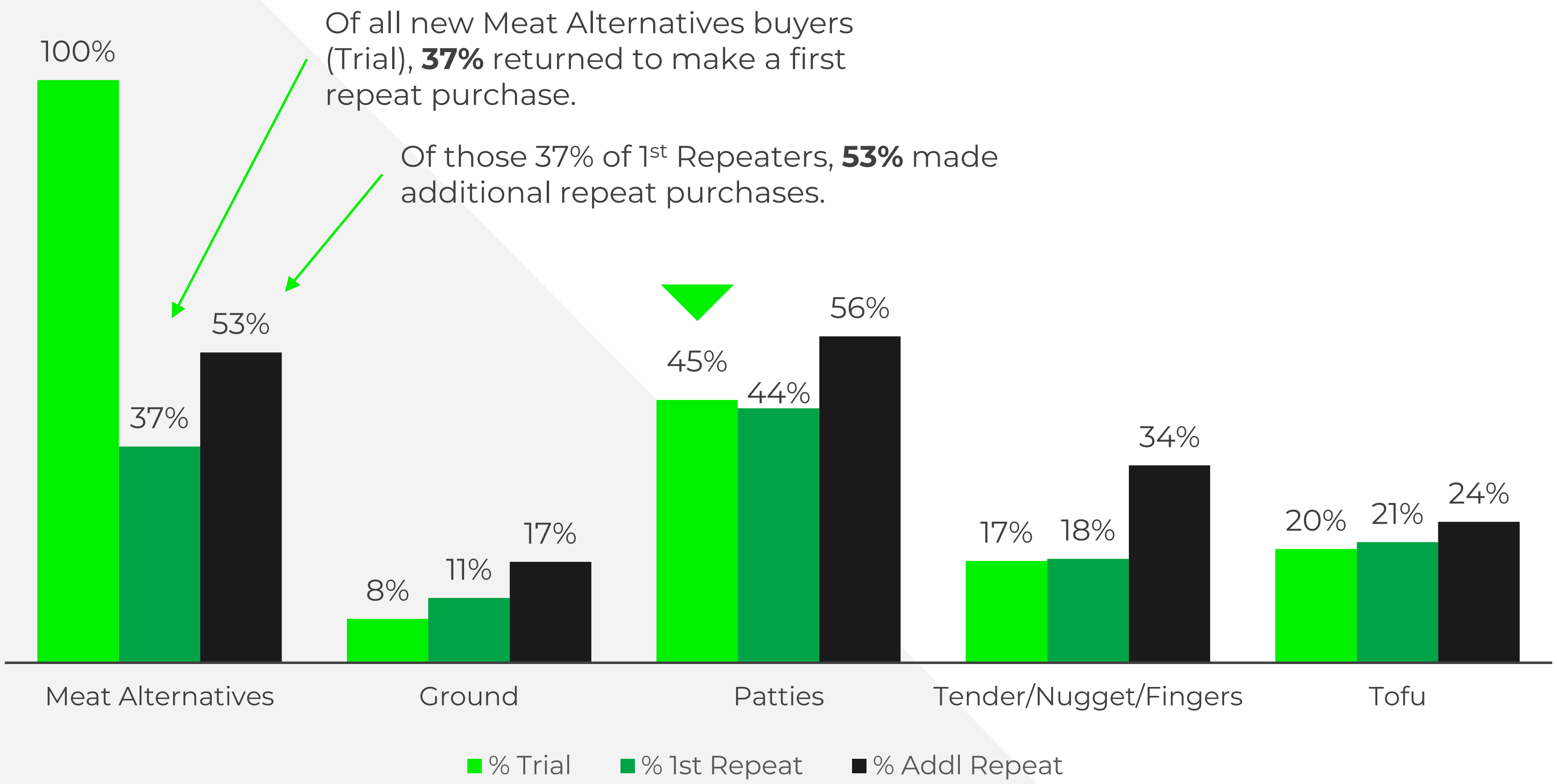
Higher income (>$100K)

45-54 yr olds

NielsenIQ Homescan panel; Total US, All Outlets; Buyer group: Households who purchased Meat and Meat Alternatives; L52 weeks We 06/04/22
NielsenIQ Homescan Panel and Spectra CAM Household Demographics (Jul 2022), Total US, All Outlets; 52 weeks W/E 07/30/22

A quarter of meat alternative buyers are new in the past two years

% of Meat Alternatives Buyers



20%

Of all the "new" Meat Alternatives buyers, **20% made multiple repeat purchases**

New buyers = Households who did not purchase Meat Alternatives in previous 52 weeks and made their first meat alternative purchase(s) in the last 52 weeks.

Source: NielsenIQ Homescan Panel; Trial & Repeat Portfolio; Total US; New Meat Alternative Buyers; 52 weeks W/E 06/04/22

Media coverage changing; sales and units declining


CULTURE

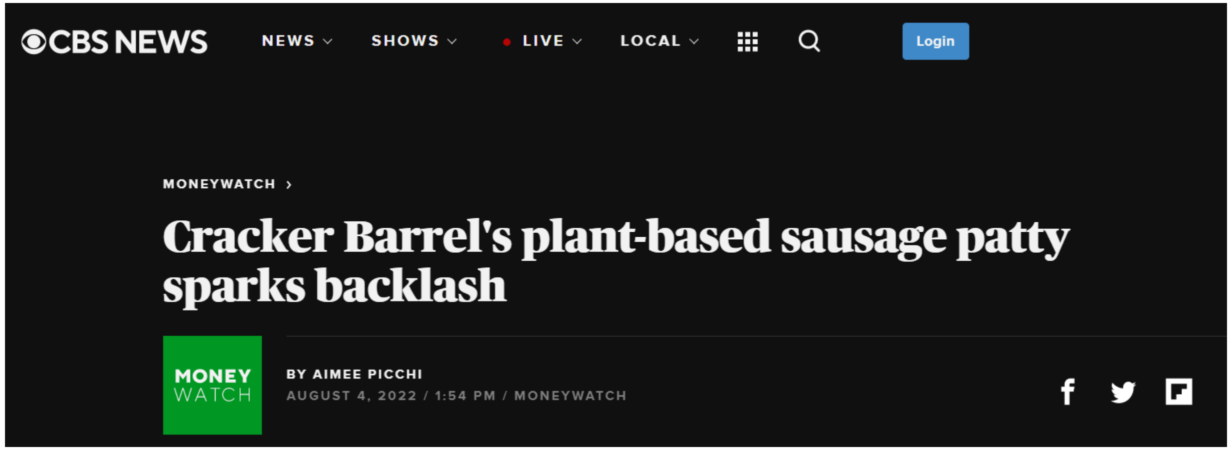
Fast Food Took a Gamble on Fake Meat. It's Not Paying Off

McDonald's McPlant experiment reveals how fake meat at fast food restaurants is, as a whole, a grift.

BY ALI FRANCIS

August 8, 2022

bon appétit


CBS NEWS NEWS SHOWS LIVE LOCAL Login

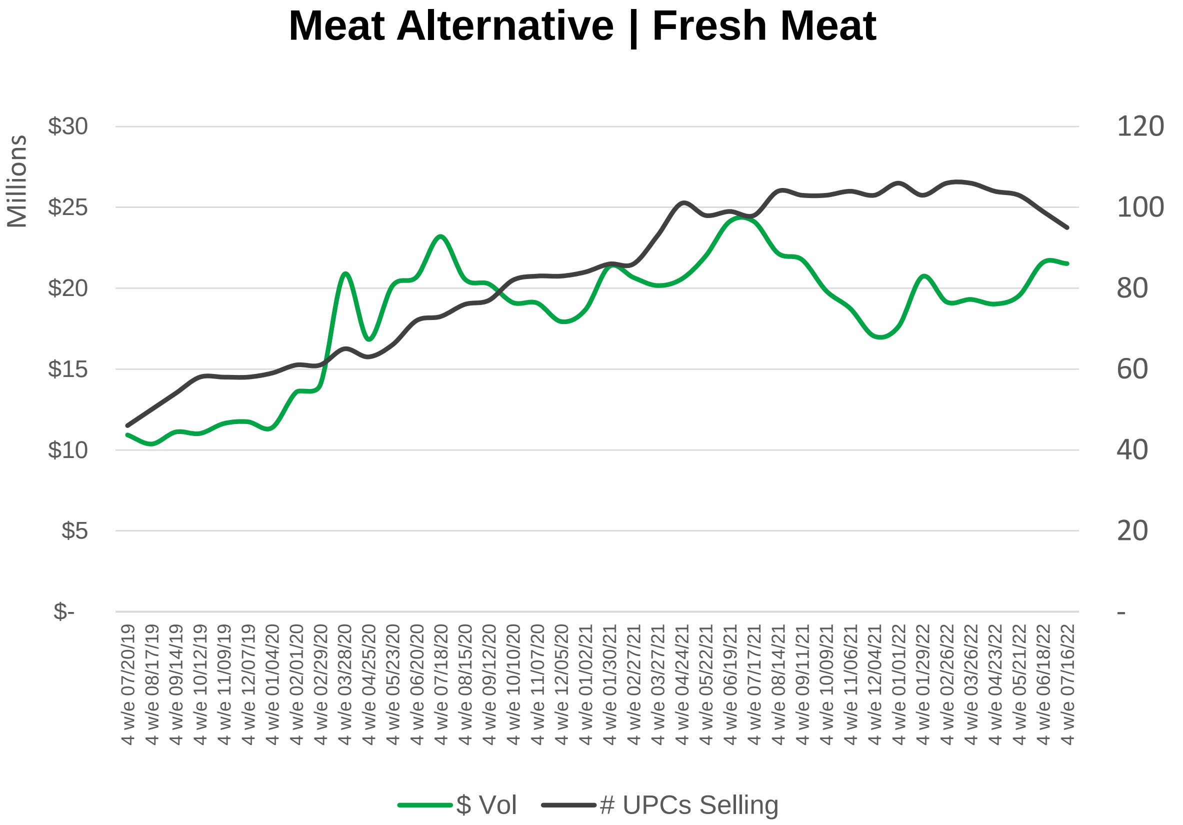
MONEYWATCH ›

Cracker Barrel's plant-based sausage patty sparks backlash

MONEY WATCH

BY AIMEE PICCHI

AUGUST 4, 2022 / 1:54 PM / MONEYWATCH

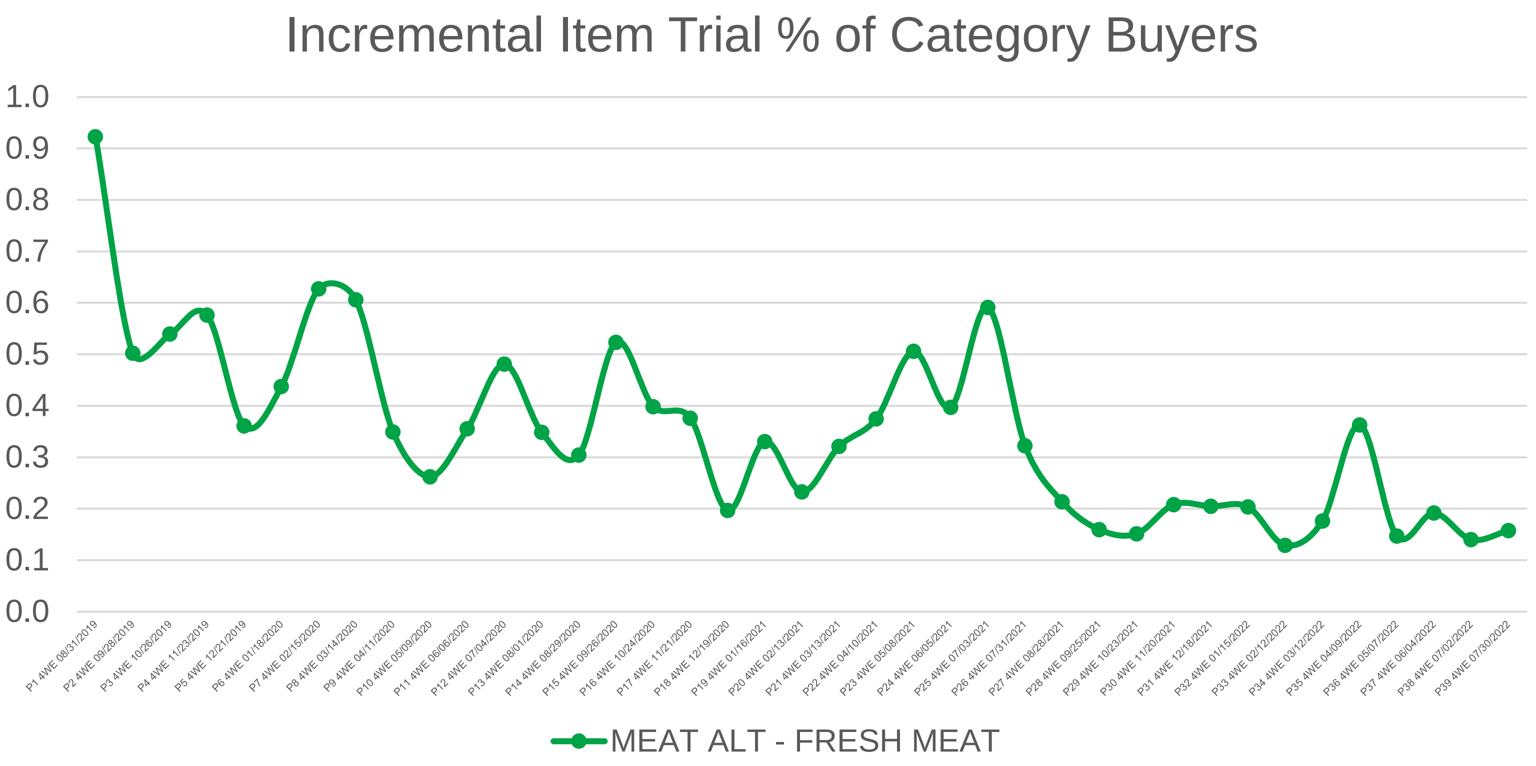


Source: NielsenIQ Retail Measurement Services, NielsenIQ Product Insight, powered by Label Insight, Food & Beverage; Total US xAOC; 52 weeks W/E 07/30/22 vs YA

Trial is declining and meat alternatives not always meeting expectations

You said you tried, once or twice. Why didn't you continue…?
Among those who tried once or twice

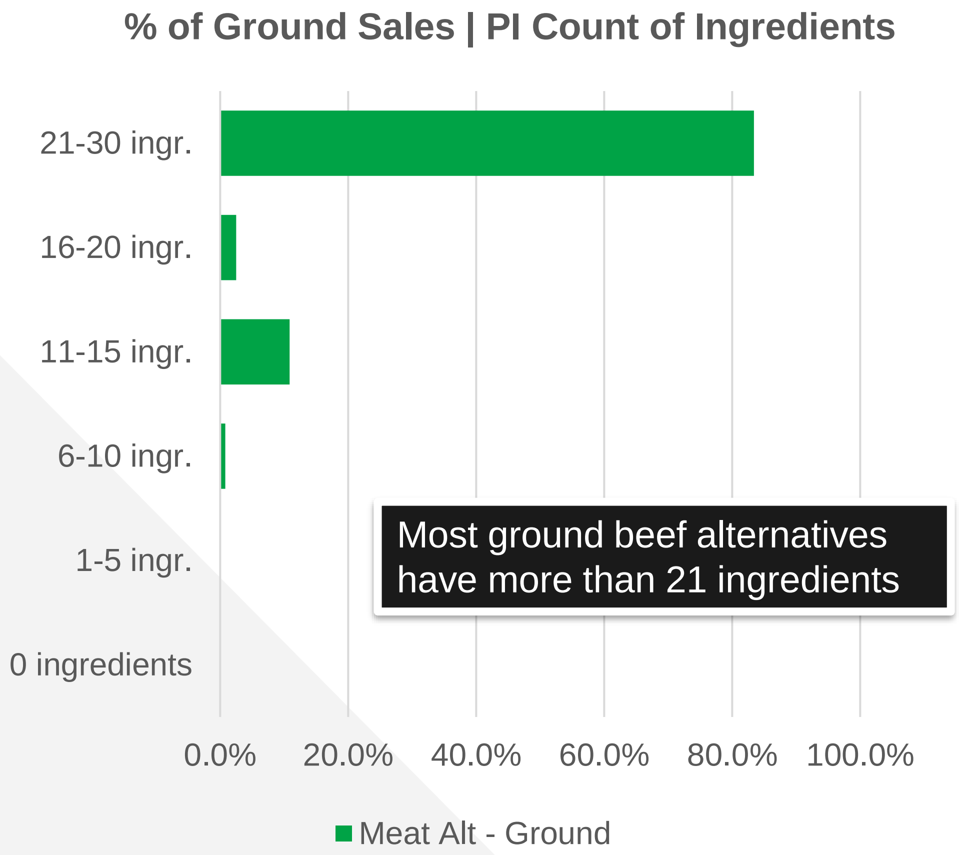
	MEAT ALTERNATIVES WITH BEANS/ VEG/GRAIN	MEAT ALTERNATIVES WITH ISOLATED PROTEIN/STARCH
Taste	47%	46%
Did not meet expectations	36%	35%
Cost	32%	30%
Texture	28%	26%
More processed than would like	16%	14%
Too many ingredients	10%	6%
Appearance	10%	10%
Quality	9%	9%
Not as nutritious as expected	7%	9%
Other	5%	5%
Ethical concerns	4%	4%
Allergy/Intolerances	4%	3%



Source: FMI The Power of Plant-Based Foods and Beverages, 2022
NielsenIQ Homescan Panel; Incremental Trial Buyers; Food & Beverage, Total US – All Channels, 4W trend line over last 3 years W/E 07/30/22

Consumers paying attention to health attributes and processing

- 94% of alt-meat contain artificial ingredients
- 89% of alt-meat have more than 200 calories per serving
- 86% of alt-meat/ground exceeds the saturated fat limit on nutrient claims



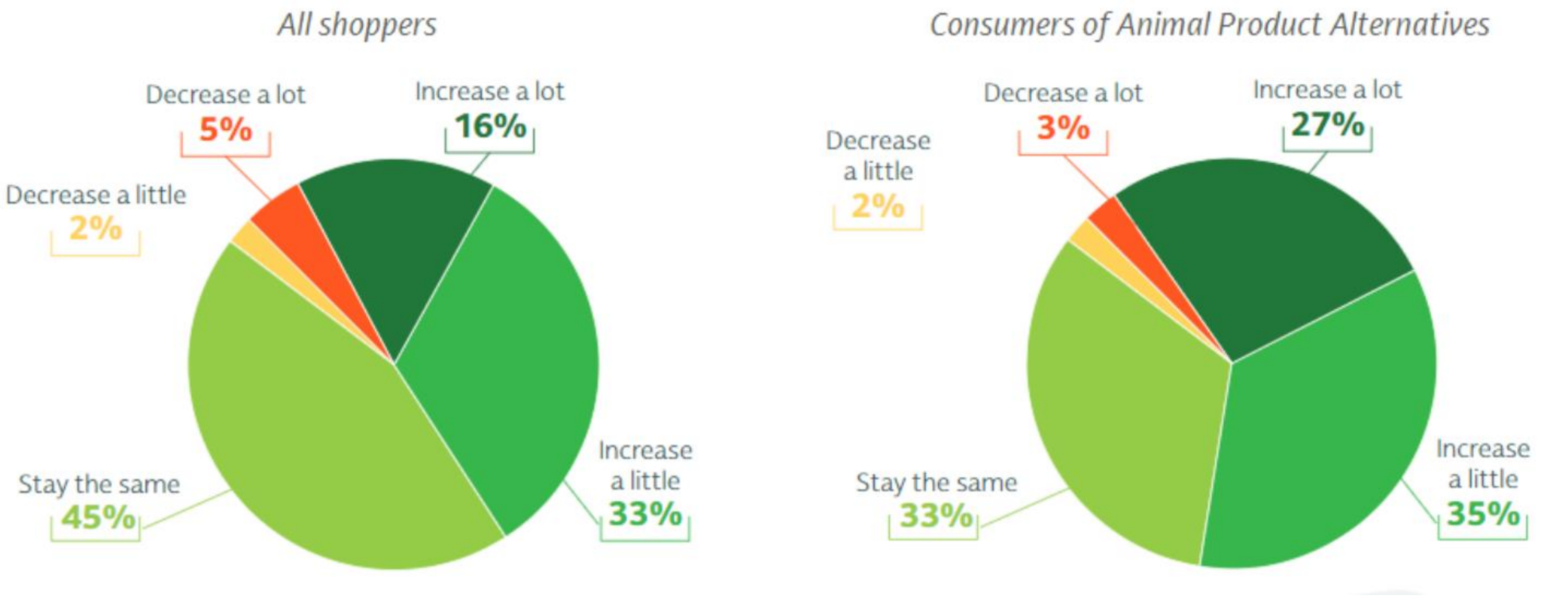
Keeping it Natural Microculture

- Keeping it natural = striking a balance between additives, processed plant oils, and palatability of plant-based foods.
- These consumers value natural, organic plant-based products without additives.
- Consumers want natural plant-based foods and drinks with minimal artificial stabilizers, coloring, and sweeteners.
- Consumers want to know what plant oils are going into plant-based foods and drinks.

Source: NielsenIQ Retail Measurement Services, NielsenIQ Product Insight, powered by Label Insight, Total Store; Total US xAOC; 52 weeks W/E 07/30/22
Motivebase, Consumer's Approach to Plant-based Foods and Beverages

But consumers anticipate increasing plant-based food/beverage consumption

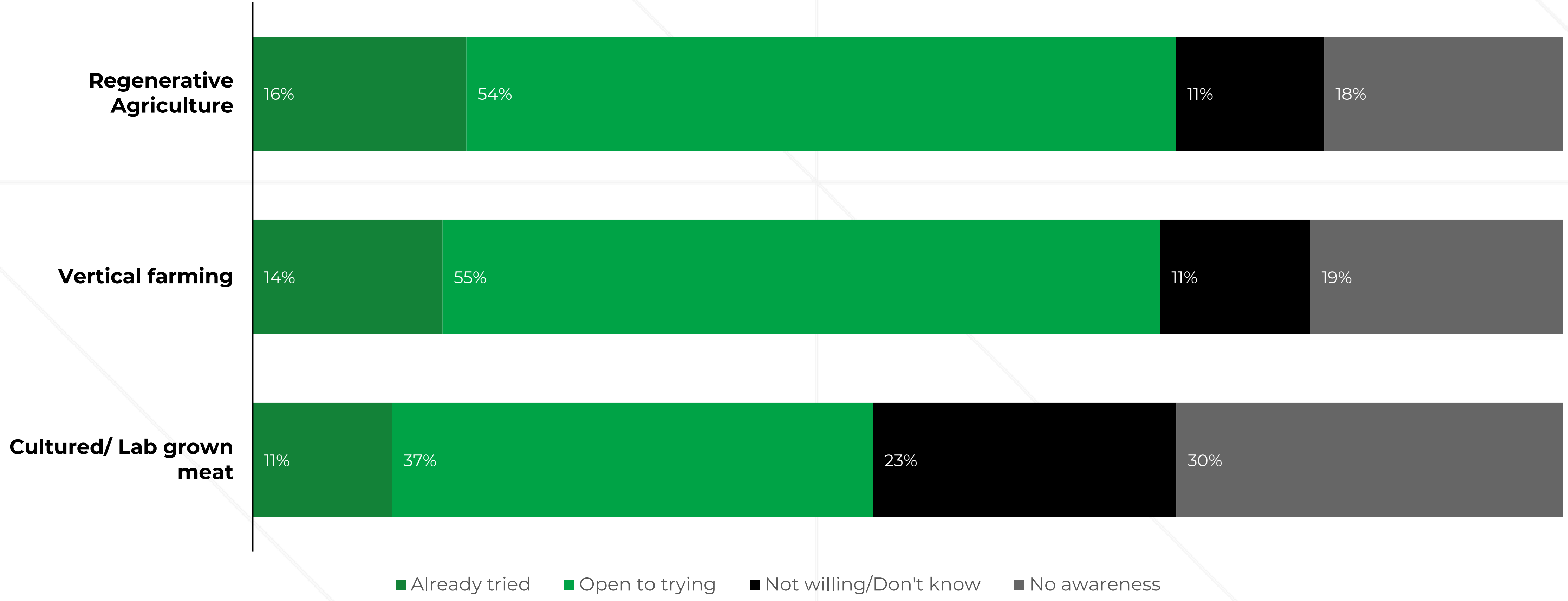
In the future, do you think your consumption of plant-based foods/beverages will...?



Source: FMI The Power of Plant-Based Foods and Beverages, 2022

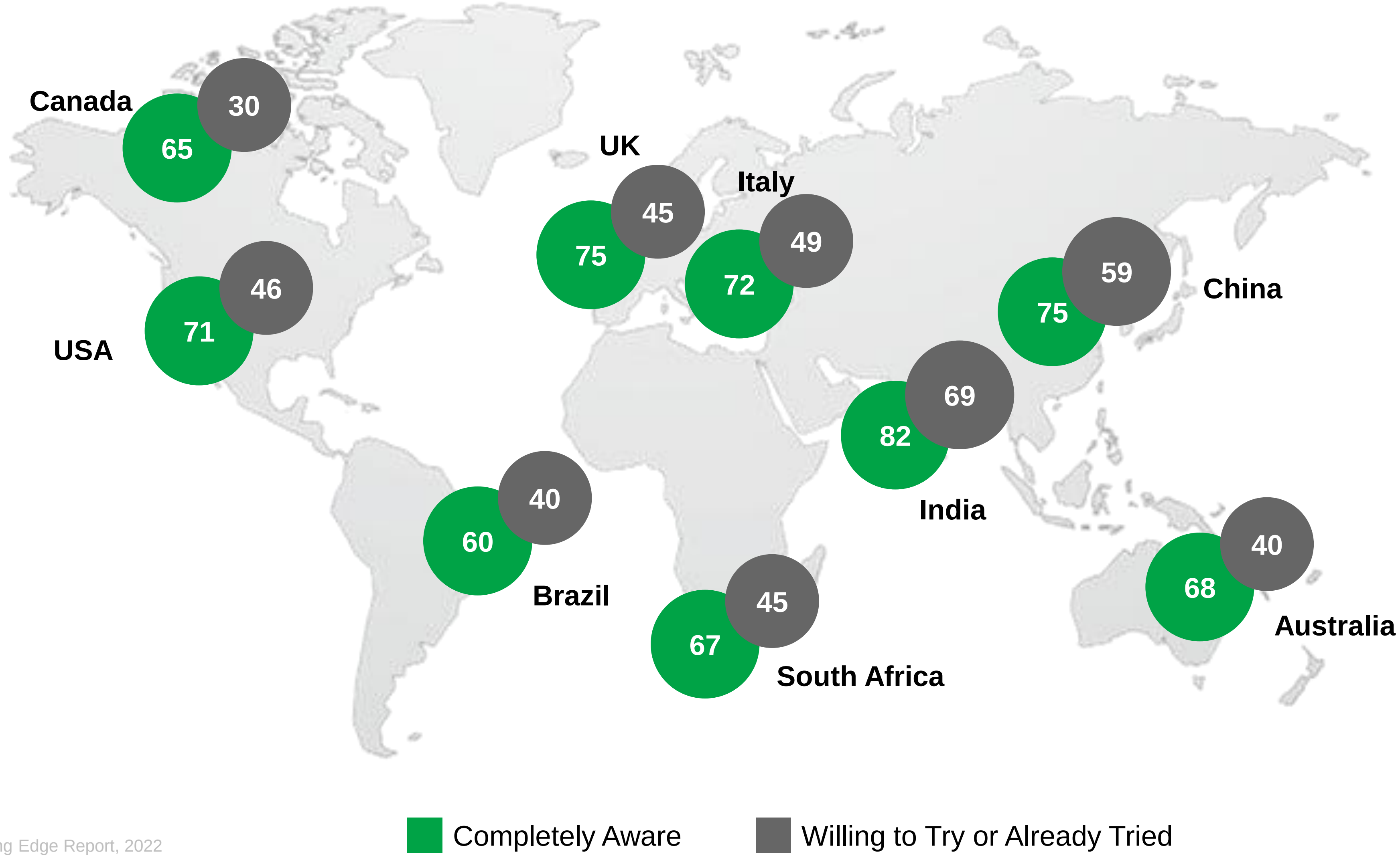
Looking to the future:
Awareness and openness of lab-grown meat versus other innovations

Willingness to trial new innovations



Source: NielsenIQ Leading Edge Report, Global Report
Q. Please select what best describes your awareness and willingness to trial about this innovation

Looking to the future:
consumer awareness and interest in cultured/lab grown meat varies globally



Source: NielsenIQ Leading Edge Report, 2022

In closing...

Consumer interest in plant-based and alternative protein is strong with anticipated growth, but, consumers are confused and not always satisfied with alternative proteins. Taste, health and cost are key to meeting consumer needs.