



Q3 Market Report:

ALTERNATIVE PROTEINS



Executive summary

- US menus tap significantly into plant-based meat interest with a +1,320% increase in menu mentions since pre-pandemic.
- 9% of US restaurants already serve meat alternatives, and work more with Uber Eats than any other delivery platform.
- Sausage is the most replicated meat type in vegan dishes; vegan jerky is the next plant-based trend to watch.
- Oregon rules with the highest percentage of restaurants serving alternative meat; New Jersey is the next state to watch.
- At least \$200M is left on the table every year across delivery platform gaps of alt meat dishes.
- Personal health beats planetary health as the primary motivator for vegan meat consumption, but sustainability is newly on the rise in consumer interest.
- Beyond Meat is 2x more popular than Impossible meat on restaurant menus, and 3x more popular in home use; however, Impossible meat is rising faster in consumer interest.



Note from the CEO

The world of food and beverage must change significantly in the next decade.

The way we order, cook, and eat is already transforming in the face of a global pandemic, climate change, new technologies, and increased interest in health. Today's consumers require food and beverage that responds to their needs, and provides solutions to their problems - from the personal to the planetary.

One of the most significant changes afoot is the rise of alternatives to meat, a \$14B opportunity. Responding to the devastating advance in climate change, many companies are working to reduce the significant climate footprint of the animal-farmed meat industry by innovating ways to move away from animal meat. This increase in resources devoted to plant-based meat products, combined with consumer demands for real, versatile solutions, results in a timely shift in the way we consume food.

Using tech to solve problems can open the door to lasting, sustainable change. At Tastewise, we use AI to help brands create impactful contributions in what some in the industry, like alt meat manufacturer ReDefine Meat, are calling the "new meat" space - the plant-based, meat alternatives that are the talk of the industry.

We hope you will use the insights in this report to guide your product development, marketing, and sales strategies. We're looking forward to a healthier, more sustainable world of food and beverage, where we all play a part.

Alon Chen
CEO @ Tastewise





Meat alternatives: a \$14B opportunity

The retail market for plant-based foods broadly is worth

\$7B

in the USA.*



Conservatively, restaurants serving alt meat products leave **\$200M** on the table each year by not taking advantage of the demand for delivery.**

\$200M



The plant-based meat market is worth **\$1.4 billion** in the US.*

↑ The category increased by more than **\$430** million in sales from 2019 to 2020.



Plant-based meat accounts for **1.4%** of the total retail meat market*;

vegan eating and drinking accounts for

2.5%

of all food and beverage discussions.**



GFI analysis predicts that the plant-based meat industry has a

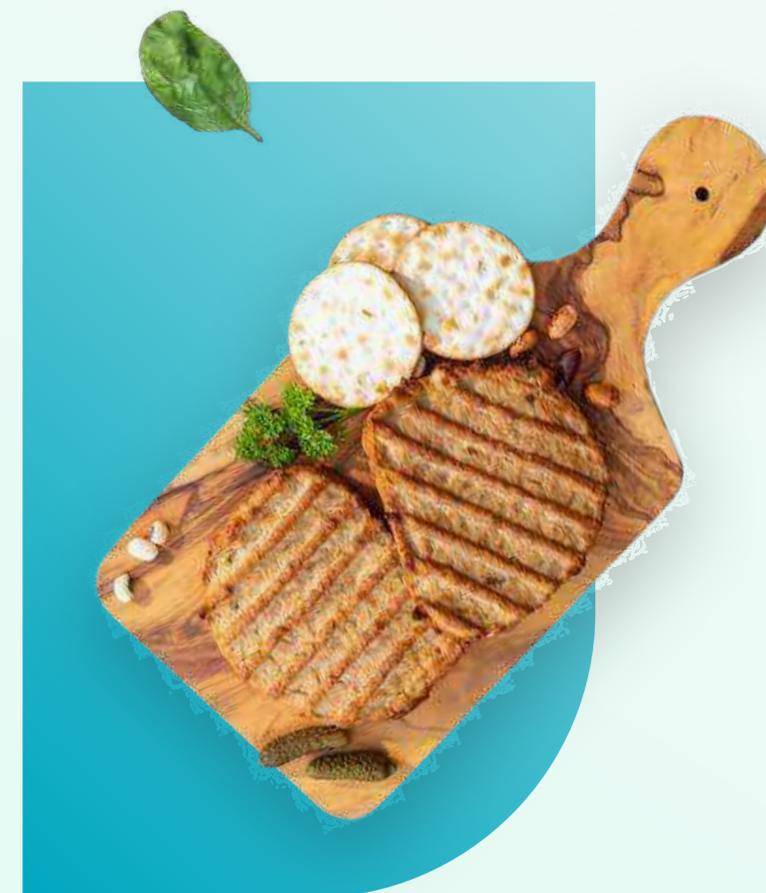
\$14B

opportunity ahead of it, based on the performance of the plant-based milk market.*



*Source: [The Good Food Institute](https://www.thegoodfoodinstitute.com/)

** Source: Tastewise, July 2021



THE CASE FOR ALTERNATIVE MEAT

Why does the category matter, how do consumers engage with it, and what's next?

Insights in this report are sourced from the Tastewise platform based on US data through July 1, 2021.



Meat alternatives are the “goldilocks” of the plant-based alternatives landscape

Plant-based dairy is oversaturated; plant-based seafood is too young of a trend.

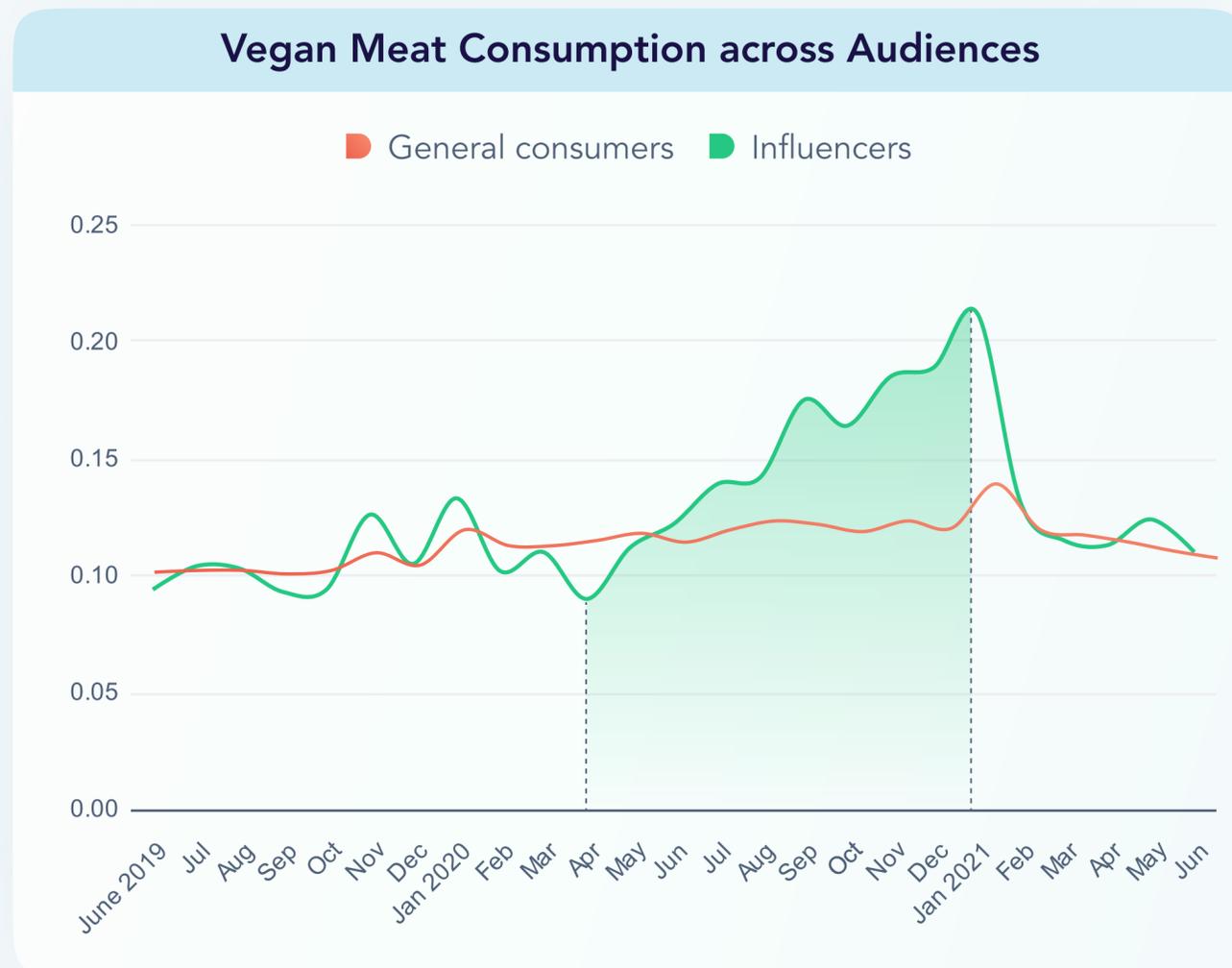
	Plant-based Dairy	Plant-based Meat	Plant-based Seafood
Social Penetration	0.02%	0.01%	0.00%
YoY Social Interest Growth	-8.93%	+23.86%	+90.7%
Menu Mentions	0.08%	1.20%	0.01%
YoY Menu Mention Growth	+89.7%	+13.7%	+50.3%

Declining - too late Just right Emerging - too early



Influencer interest in alt meat signals a cultural shift towards the category; the mainstream reflects the change

Mainstream interest in plant-based meat is +16% higher than June '19.



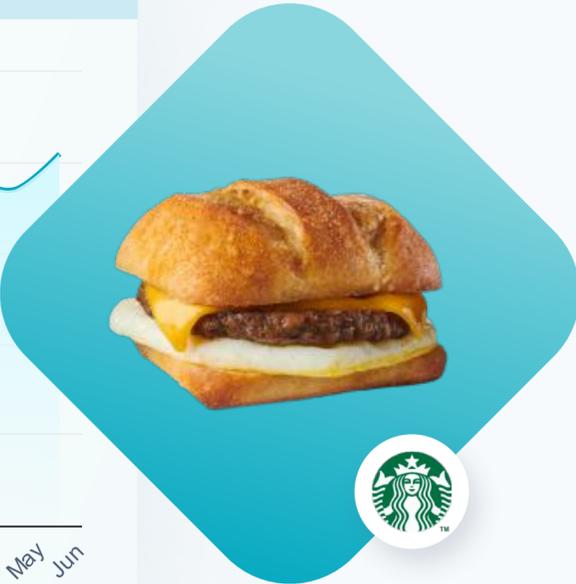
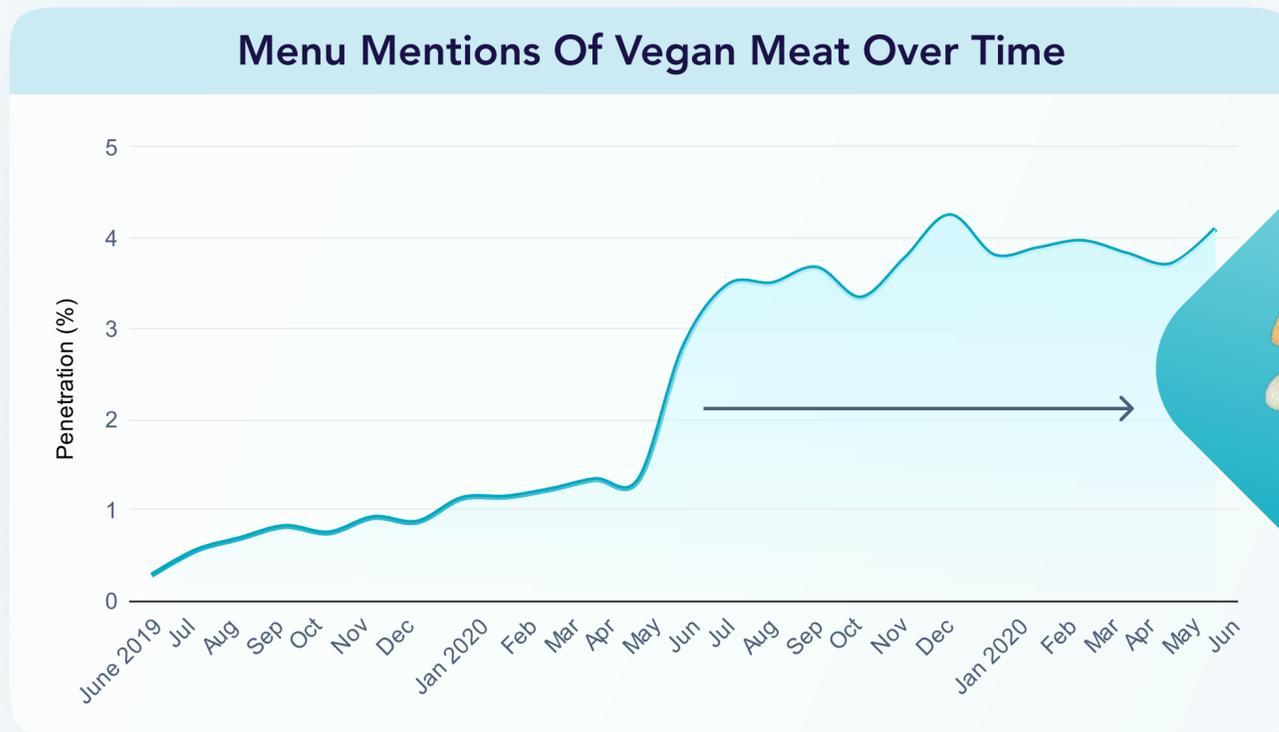
Insight

Everyone and their mother is talking about plant-based meat. The category has progressed from the niche interest of vegans, to a topic worthy of news stories on IPOs, exclusive brand partnerships, and buzzy product roll-outs. 2020 saw a new voice join the conversation: social media influencers! These massive accounts - covering topics from lifestyle to food and more - began to feature alternative meats at a much higher rate than previously at the start of the pandemic, and continued until January, 2021. This switch from alt meats being a niche interest to a part of the larger mainstream conversation indicates that the trend is growing rapidly - and here to stay.



US menus tap significantly into alt meat interest with a +1,320% increase in menu mentions since pre-pandemic

Getting alt meats into food & beverage chains has an impact; Starbucks' addition of Impossible Breakfast Sandwich led the charge

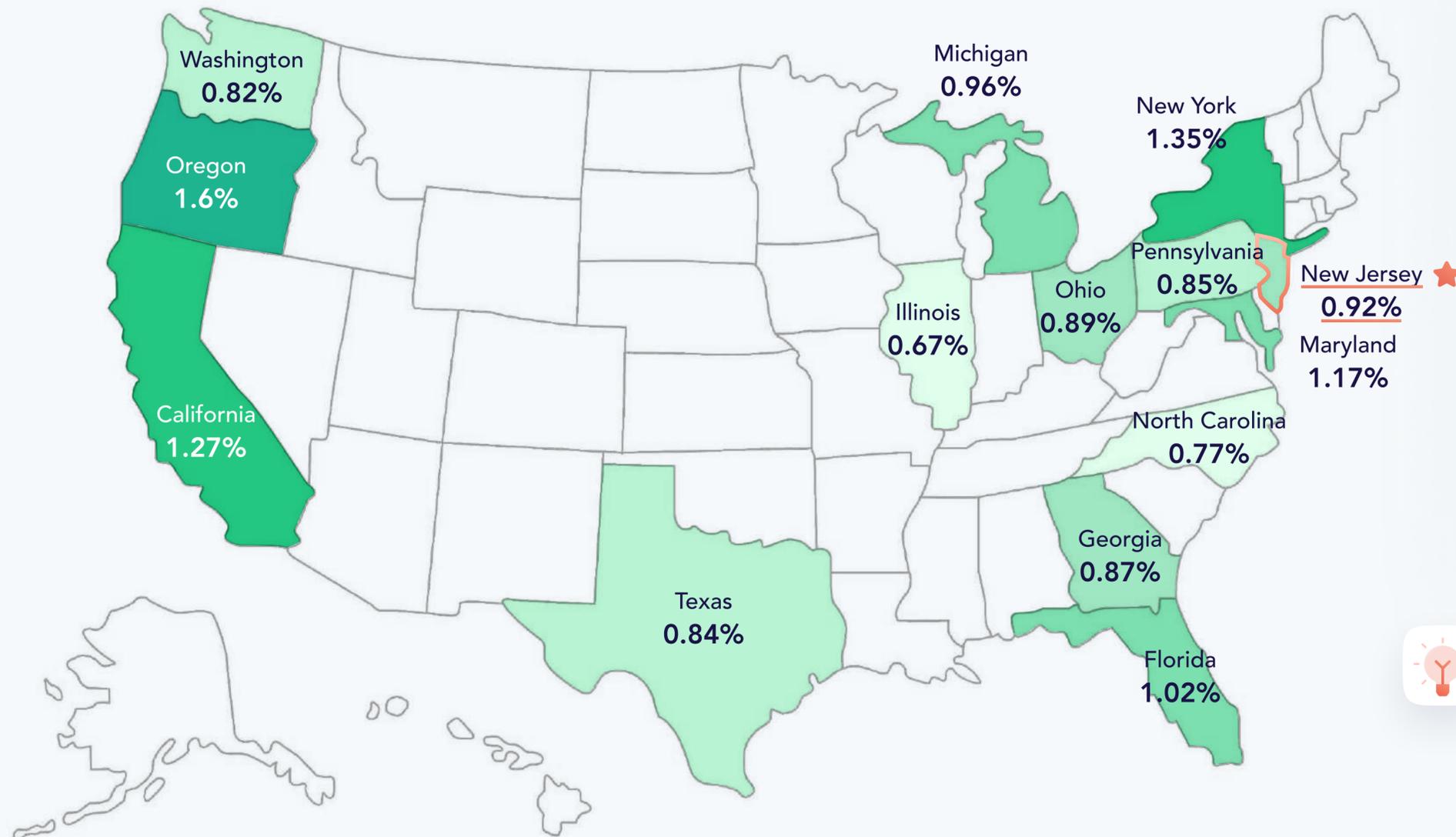


Insight

May-July 2020 saw a +158% spike in menu mentions of vegan meat across the US, largely due to Starbucks' June 2020 addition of the Impossible Breakfast Sandwich. This addition prompted further growth in the category that continued despite challenges to restaurants during COVID.



Oregon reigns as the US state with top penetration of vegan meat menu mentions



City Rankings:

1. NYC
2. Los Angeles
3. Portland
4. Austin TX
5. San Diego
6. Philadelphia
7. Houston
8. Chicago



American trend-setting cities and states have already adopted the alt meat trend, indicating a trend set to grow nationwide. Next up? **New Jersey** shows significant growth across menus (+56% YoY, 2x the next runner up, Michigan!), likely due to the COVID-era influx of New Yorker transplants.



At least \$200M is left on the table every year due to delivery platform gaps

Uber Eats wins as the top delivery platform serving restaurants with vegan meat options nationwide.

9.2% of US restaurants currently serve vegan meat alternatives.

Restaurants featuring alt meats work 38% more with Uber Eats than with Grubhub, and 32% more with Uber Eats than with DoorDash



GRUBHUB

DOORDASH

In the top cities serving vegan meat alternatives in the US:

NYC: Plant-based meat is offered on DoorDash 4% more than on Uber Eats or Grubhub

LA: Plant-based meat is offered on Uber Eats 17% more than on DoorDash

Portland: Plant-based meat is offered on Uber Eats 16% more than Grubhub



Insight

Conservatively, ~\$7M is left on the table nationwide every two weeks by restaurants that neglect to list their plant-based meat offerings on their delivery menus across all the delivery platform partners with which they work: that's **\$200M** a year in easy money.

WHAT DRAWS CONSUMERS TO ALTERNATIVE MEAT?

And how can brands tap into these important motivations to create relevant, successful products?





Health and sustainability are primary drivers for eating alternative meat



Insight

While health dominates as the top motivator behind alt meat consumption (9% of interest), sustainability is rising fast in interest (+58% YoY) while interest in health drops (-12% YoY) to levels similar to pre-pandemic.

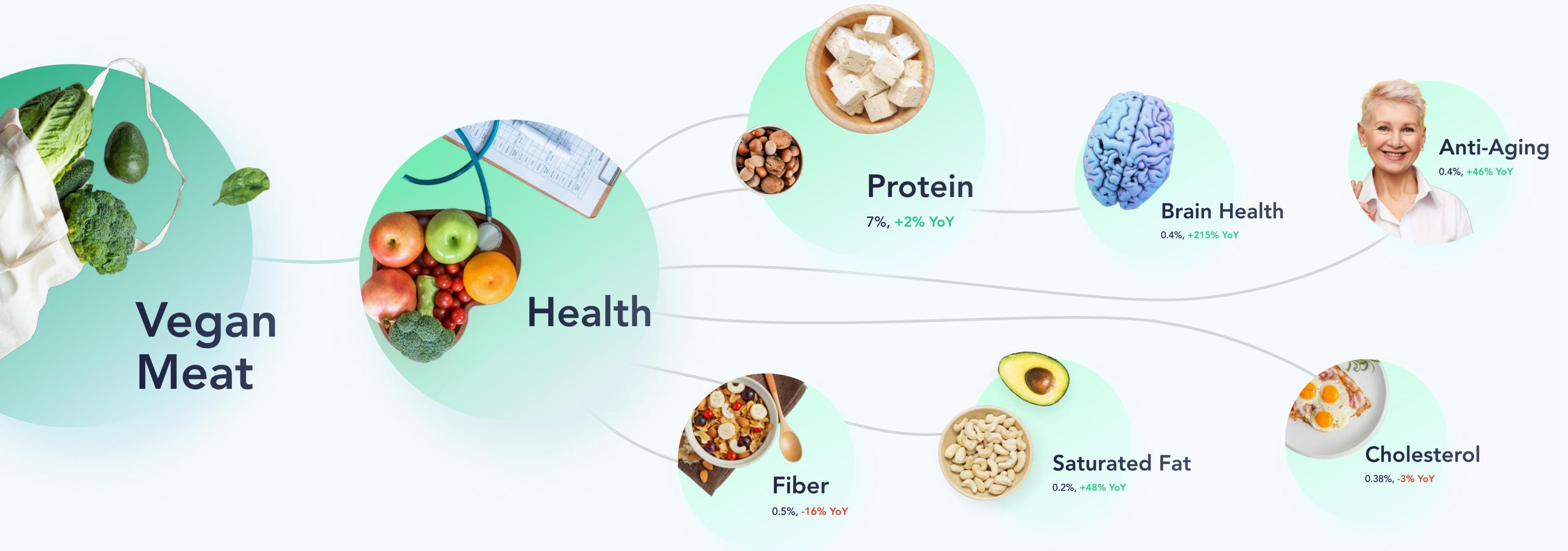


Insight

Consumers primarily choose vegan meat alternatives for sustainability and health reasons. Many consumers don't want to give up the sensory and social experience of eating animal meat once they've turned to alt meats, revealing a new market need for products that replicate that experience authentically.



Under the umbrella of health concerns, people choose alt meats for protein, fiber, and brain health needs

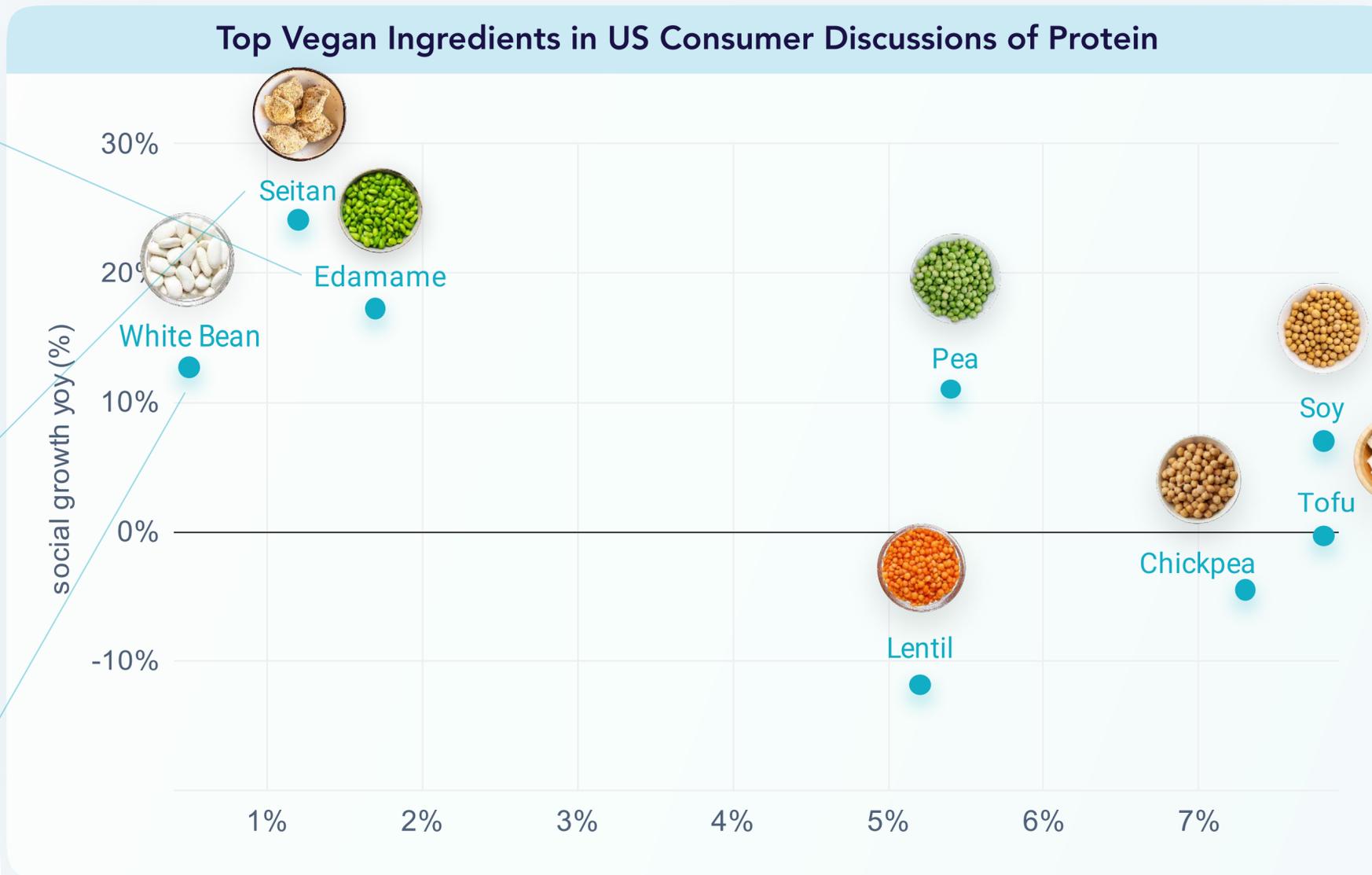




Consumers turn to soy to increase protein intake when eating plant-based; seitan is rising fast



Sweet potato and white bean veggie burger
717K



Insight

Soy, tofu, and chickpea dominate as the most popular protein-packed vegan meat alternatives. Interest in pea protein is increasing, lentils are falling out of favor. Seitan, edamame (related to soy), and white bean are experiencing the highest levels of growth in consumer interest.



Top meat-mimicking brands that highlight trending health and wellness claims capture consumer awareness; Quorn leads the pack

	 BEYOND MEAT	 IMPOSSIBLE	 Quorn	 gardein
Protein	Room for Improvement	Lagging Behind	Leading	Well Positioned
Fiber	Well Positioned	Room for Improvement	Leading	Lagging Behind
Saturated Fat	Room for Improvement	Well Positioned	Leading	Lagging Behind
Cholesterol	Room for Improvement	Well Positioned	Leading	Lagging Behind

*Rankings are determined by each claim's prevalence in consumer conversations about each brand

Insight

Impossible beats Beyond Meat in positive saturated fat and cholesterol aspects according to consumers, but Beyond Meat places better in protein and fiber content. Quorn's recent IPO has drastically affected consumer awareness of its products' benefits, helping it to win in every category.





Animal rights decline as a motivator for alt meat; climate change concerns step up



Vegan Meat



Sustainability



Climate Change

1%, +83% YoY



Animal Rights

5%, -14% YoY



Insight

While animal rights, an original driver for eating vegan, is more established as a motivation for alt meat consumption (5% of discussions), interest is declining; climate change concerns fill the gap with significant growth of +83% in interest YoY.

Interest in habitat conservation and carbon footprint, although still small for vegan meat, already shows significant growth for general plant-based consumers (+11% YoY and +103% YoY respectively) indicating an opportunity for the alt meat category.



Taste is top-of-mind for consumers replicating the 'meat experience'; texture & health concerns follow



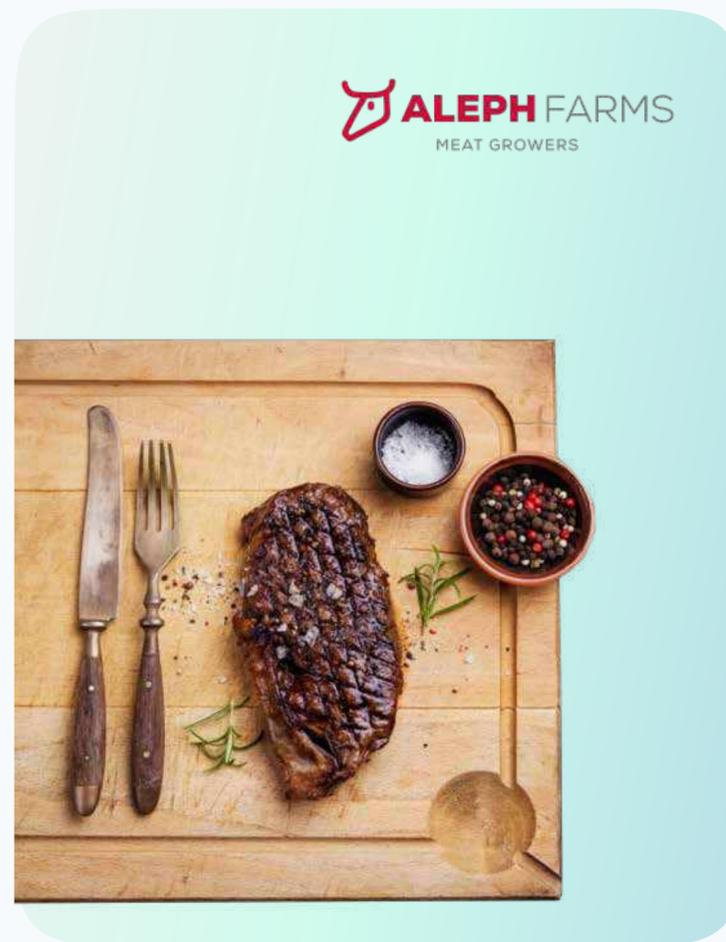
Insight

Taste matters most to consumers looking to replicate the (animal) meat experience, but texture and health are also part of the puzzle. Brands that consider texture and health in addition to tastiness are more likely to capture consumer attention - and loyalty.



Crispy and juicy? New technologies tackle animal meat's versatility

Emerging new technologies that can capture both taste and trending texture preferences are set to succeed



Top trending textures:

- Interest in **crispy** meat alternatives: +44% YoY
- Interest in **juicy** meat alternatives: +108% YoY



Insight

Innovative startups are focusing on consumer demand for 'life-like' taste and texture in combination; new lab-grown, cultured, and 3D printed technologies promise huge customer-facing innovation in the near future.



Successful home cooking influencers highlight textures and tastes to get 20x more traction

12% of vegan meat dishes are made at home; most successful recipes focus on in-demand claims

Influencers	Engagement	Total # of Recipes
This Savory Vegan	885,290	208 Recipes
Rabbit And Wolves	674,076	57 Recipes
Hy-vee Recipes And Ideas	558,937	851 Recipes
Feasting At Home	521,255	75 Recipes
Healthy Living And Lifestyle	509,746	86 Recipes



I am so proud of this vegan balsamic caprese "chicken"! The best seitan "Chicken", it is tender, but still firm. Everything is baked together and it is one of the most delicious meals I've ever had. I love to serve this "chicken" with pasta drizzled with a little olive oil and some of the leftover balsamic reduction. Any vegan naysayer will instantly fall in love with this dish and ask for more!



Insight: Recipe influencers like **Rabbit and Wolves** use descriptive claims that speak to trending consumer tastes and textures to gain 12K+ engagements per recipe. Recipes that call out specific motivations and needs can get up to of 20x more engagement than recipes that do not; consider leveraging this in your content marketing strategy to get more engagement for a fewer amount of recipes.



WHAT ARE THE TOP DISHES, INGREDIENTS, AND PRODUCTS FOR ALT MEAT?

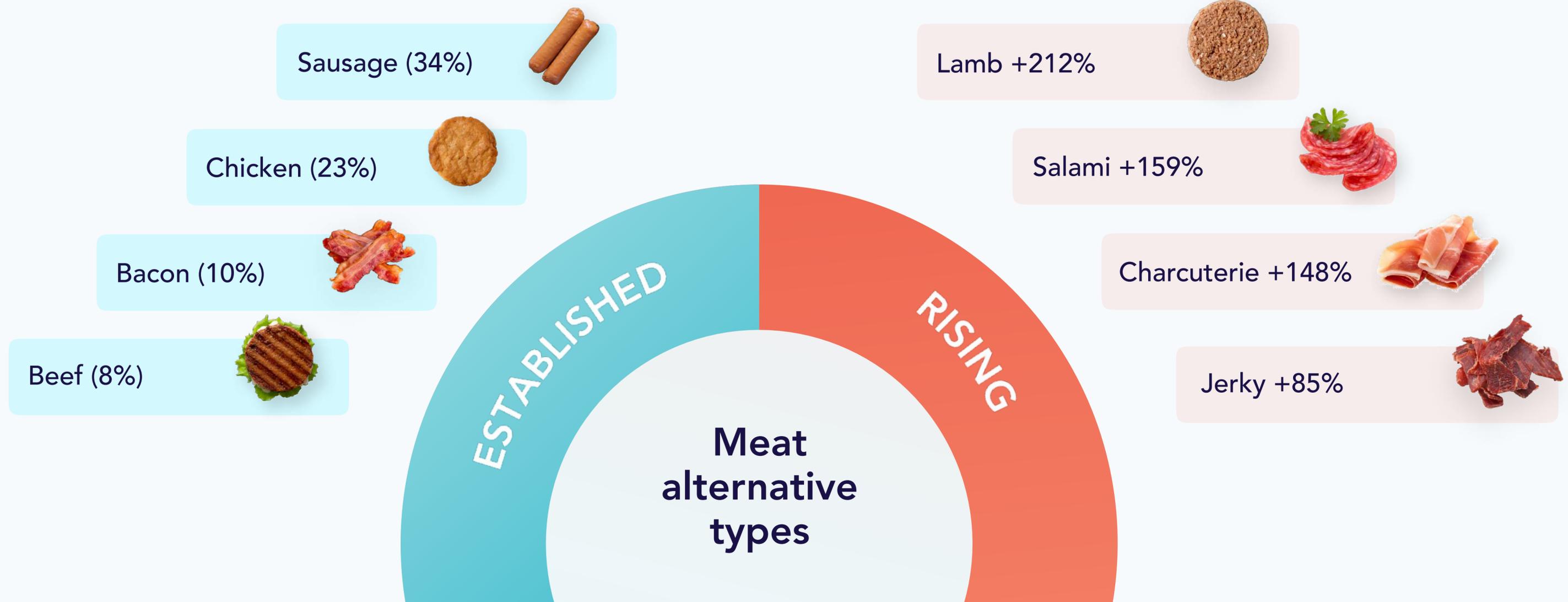
And what whitespaces exist for new innovation?



Sausage is the most replaced meat type by Americans



Insight: Sausage is the top meat type that consumers are trying to replicate with plant-based products/ingredients (34% of alternative meat consumption is of sausage); more niche meats, like lamb, salami, charcuterie, and jerky are up-and-coming.





A saturated sausage scene prompts consumers to get creative; walnut chorizo steals the show

34% of meat alternative consumption is as sausage, making it the #1 most replaced form of meat;

72% increase in interest in walnut-based sausage in the last 3 months;

82% of walnut sausage consumption is in the form of chorizo;

30% of all walnut sausage consumption is as a taco ingredient.



Insight

Sausage is the most replicated form of meat; soy is the primary ingredient for sausage replication (6% of all alternative meat discussions). Walnut chorizo is an up-and-coming ingredient to watch for sausage replication, and offers high protein content in tasty formats.



nutsaboutgreens Are you team tacos or team burrito bowls? I love both but I'm usually team burrito bowls because rice > tortillas 😊 and my husband is usually team tacos. Regardless, you need this SUPER easy vegan cauliflower walnut chorizo/taco meat in your life because A) it's delicious and B) it only takes 5 minutes to prep and your oven does the rest 🙌! I'm all for fast and easy meals these days without compromising on flavor 🍷. It's been awhile since I shared this recipe and what better day to bring it back than on Cinco de Mayo! You can add this vegan chorizo to tacos, burrito bowls, quesadillas, nachos, or anything your heart desires. It's great for meal prep too! Get ready to hit save because



dishingouthealth Spice up your #tacotuesday with my vegetarian Taco Casserole with Walnut Chorizo. Layered and loaded with hearty plant-based chorizo (which packs every bit of smoky spice as the classic cured meat), taco-spiced yogurt, chunky salsa, and melty Monterey Jack cheese. Garnish with your favorite cool and creamy fixings (avocado, cilantro, black olives, etc.) and this one-dish dinner delivers taco night bliss. Find the recipe through the link in my bio!

12 нед.



Trending meat types offer significant whitespaces

	Ground Meat*	Patties*	Chicken*	Turkey	Beef/Roasts**	Sausage*	Pork/Bacon	Meatballs	Deli Meats**	Jerky**
Impossible Foods	✓		✓			✓	✓			
Beyond Burger	✓	✓				✓		✓	✓	
Nuggs (now Simulate)			✓							
Quorn	✓	✓	✓	✓	✓			✓		
Daring Original Pieces			✓							
Abbot's Butcher	✓		✓							
Hillary's		✓				✓				
Sweet Earth	✓	✓	✓			✓	✓		✓	
Amy's		✓			✓			✓		
Boca		✓	✓							
Field Roast		✓	✓	✓		✓			✓	
No Evil			✓	✓		✓	✓			
Gardein	✓	✓	✓	✓	✓		✓	✓		✓
LightLife	✓	✓	✓			✓	✓		✓	
MorningStar Farms		✓	✓			✓	✓	✓		
Tofurky	✓	✓	✓	✓		✓			✓	
Raised and Rooted	✓	✓	✓	✓		✓				
Upton's				✓		✓	✓			✓

*oversaturated category **undersaturated category



Trending whitespace opportunity: Vegetable jerky

Top vegetable jerky variations:

↑ Trending:

Mushroom jerky +14.6% YoY

Tomato jerky +126.5% YoY

Carrot jerky +154.9% YoY

↓ Declining:

Kelp jerky -58% YoY

Sweet potato jerky -96% YoY

Eggplant jerky -99% YoY



Insight

Mushroom jerky is well-penetrated in menu mentions (38%) and in social conversations (59%) of vegetable jerky, and dominates the top vegetable jerky recipes in the US. This establishment, combined with positive YoY growth, positions mushroom jerky as an early trend to watch.

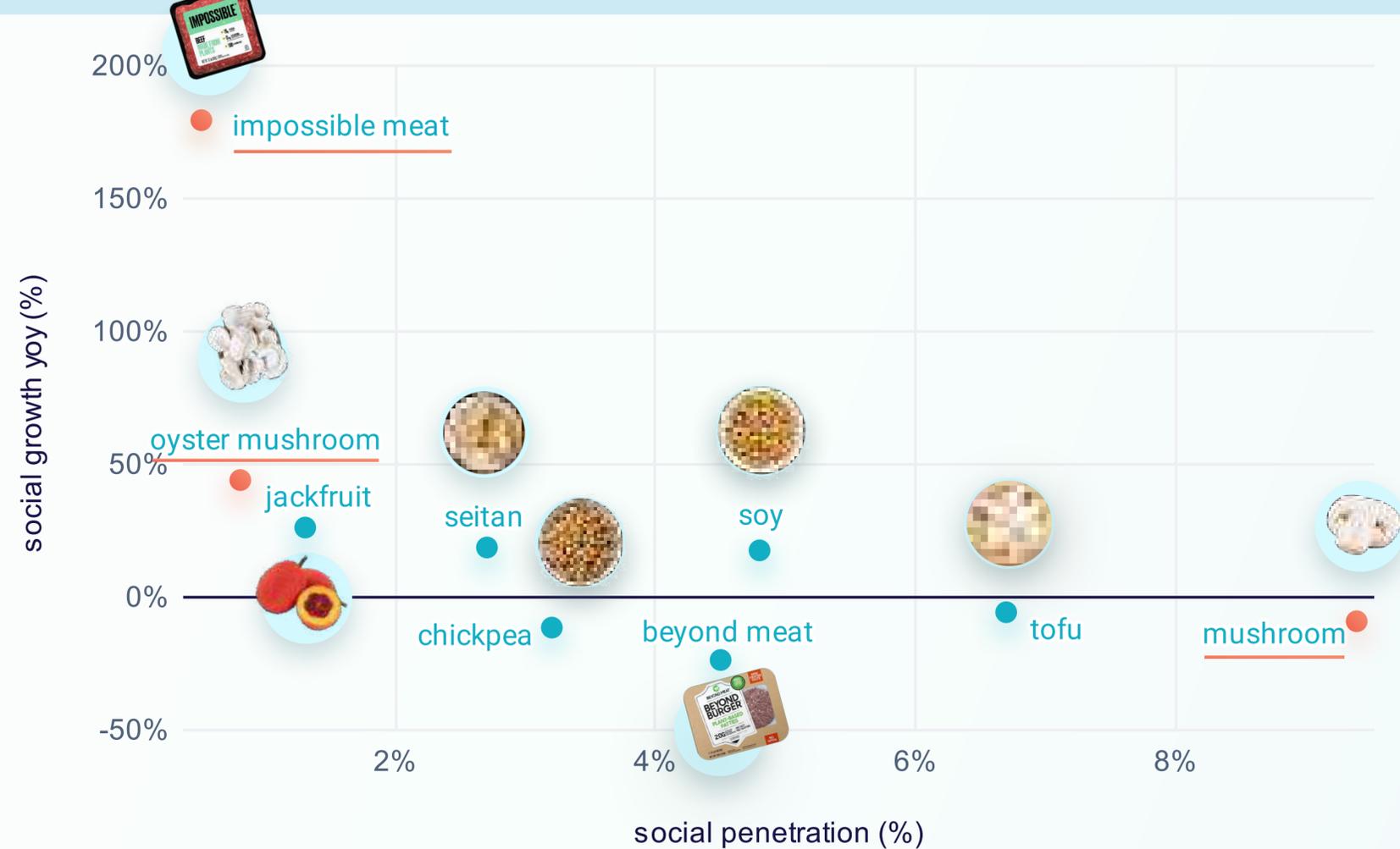
Recipe Name	Recipe Host	Popularity
Savory Eggplant Jerky	Thank Your Body	30,528
Cauliflower Jerky	olivesfordinner.com	4,957
Teriyaki Mushroom Jerky	Alison's Allspice	1,751
Eggplant Jerky	The Inspired Home	766
Vegan Mushroom "Jerky"	Food52	605
Dehydrated Mushroom Jerky	Planet Veggie	481
Mushroom Jerky	Ultimate Food Preservation	278
How to Make Eggplant Jerky	Kitchn	270
Horseradish Mushroom Jerky	Make Hike Must Eat	238
Bbq Mushroom Jerky With Chaga	Greens of the Stone Age	98
"Wanna Be" Mushroom "Jerky"	Whole Living Large	96





Mushrooms are the most common ingredient to mimic the experience of eating meat

Top Meat Replicating Ingredients In US Consumer Discussions



Insight

Mushrooms are the most established ingredient in dishes aiming to replicate animal meat; Impossible Meat is growing fast in consumer interest for its meat-like qualities.

Oyster mushrooms are seeing new popularity as a meat substitute, and are growing quickly in year-over-year interest.



Emerging opportunity: Oyster mushroom breakfast sandwich



 **dcveganlife** MUST-TRY: From 7 AM - 12 PM tomorrow, @allamericanvegan will be doing a pop-up at @donutrundc slinging out breakfast croissant sandwiches filled with @justegg and juicy oyster mushrooms! I can't wait to get my hands on one of these along with some of her mini cakes. Check out her page to view her whole morning menu! 📷: @allamericanvegan
 #vegan #dcveganlife #vegetarian #veganism #croissant #veganlunch #whatveganeat #whatveganslooklike #weekendvibes #veganfoodshare #veganfoodporn #dcfoodporn #dceats #acreativevc #lunchtime #eatyourveggies #plantbased #sandwichporn #veganpower #vegancommunity #veganrecipes



 **capersandkindness** A breakfast sandwich with @valentineburge eggless egg and king oyster mushroom bacon on a homema biscuit from a little while ago. A tasty breakfast!
 #vegan #veganfood #whatveganeat #veganfoodshare #bestofvegan #veganfoodporn #plantbased #vegansofny #vegansofnyc #nycvegan #breakfastsandwich #veganbacon #mushroombacon #veganegg #biscuits #veganbiscuits #veganbreakfast #morningsliket



 **jamaican_vegan** Because you can have whatever you want for breakfast. Even if it's this.
 Toasted Veggie Sammich, with my, No Oink Homemade Mushroom Bacon on Dave's Killer Bread. Have me messing up my good shirt, and I don't give a damn, it was 🍔
 •Topped With.
 • Follow Your Heart Chipotle Mayo Spread.
 •Using The Chipotle Delicious Seasoning to make this.
 •Crisy No Oink King Oyster Mushroom Bacon That I Made.



Insight

Oyster mushrooms are growing +21% YoY in interest for vegan breakfast; 'sandwich' is the top application for oyster mushrooms within vegan breakfast (14% of discussions), and growing +47% YoY.

HOW DO BEYOND MEAT AND IMPOSSIBLE COMPARE?

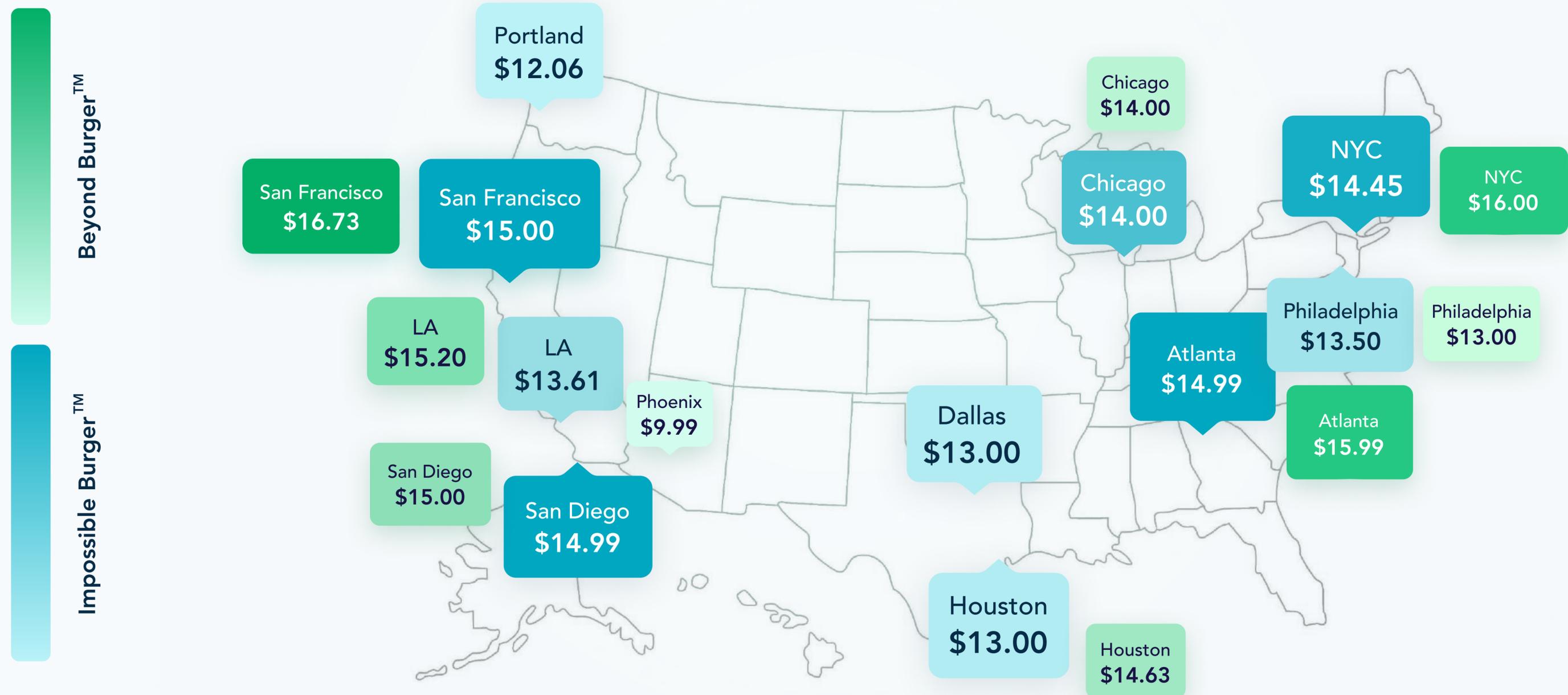
Today, Beyond Meat is 2x more popular than Impossible meat on restaurant menus, and 3x more popular in home use.

Nevertheless - consumer interest in Beyond Meat is decreasing (-46%YoY) while interest in Impossible meat is rising fast (+66% YoY). What do these shifts mean for the market?



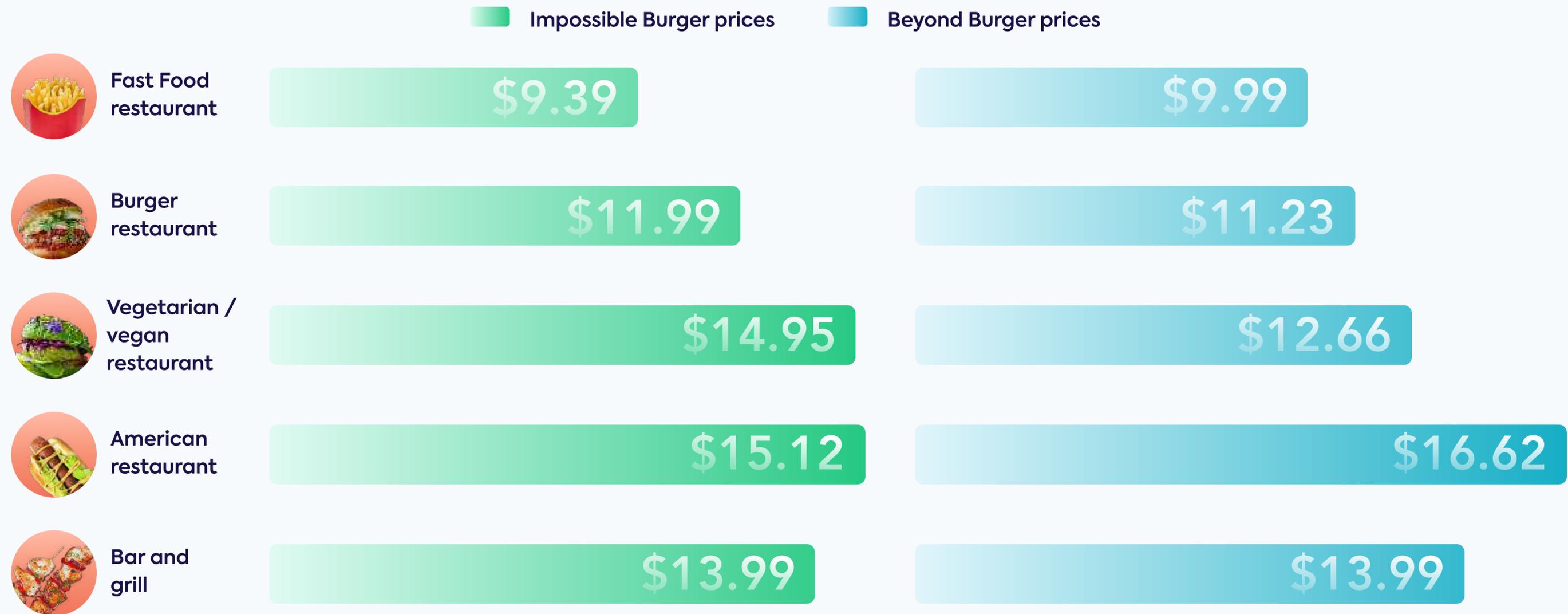


Impossible vs. Beyond Meat: US Average Pricing





Impossible vs. Beyond Meat: Avg. Foodservice Pricing



Insight: Foodservice presence of Beyond Meat will likely skyrocket in the coming years due to the brand's recent partnership with McDonald's (3 years, global) and Yum! Brands (KFC, Pizza Hut, Taco Bell); Impossible Foods has existing partnerships with Burger King, White Castle, Qdoba and Disney.



APPENDIX



Appendix: Protein Cuisines

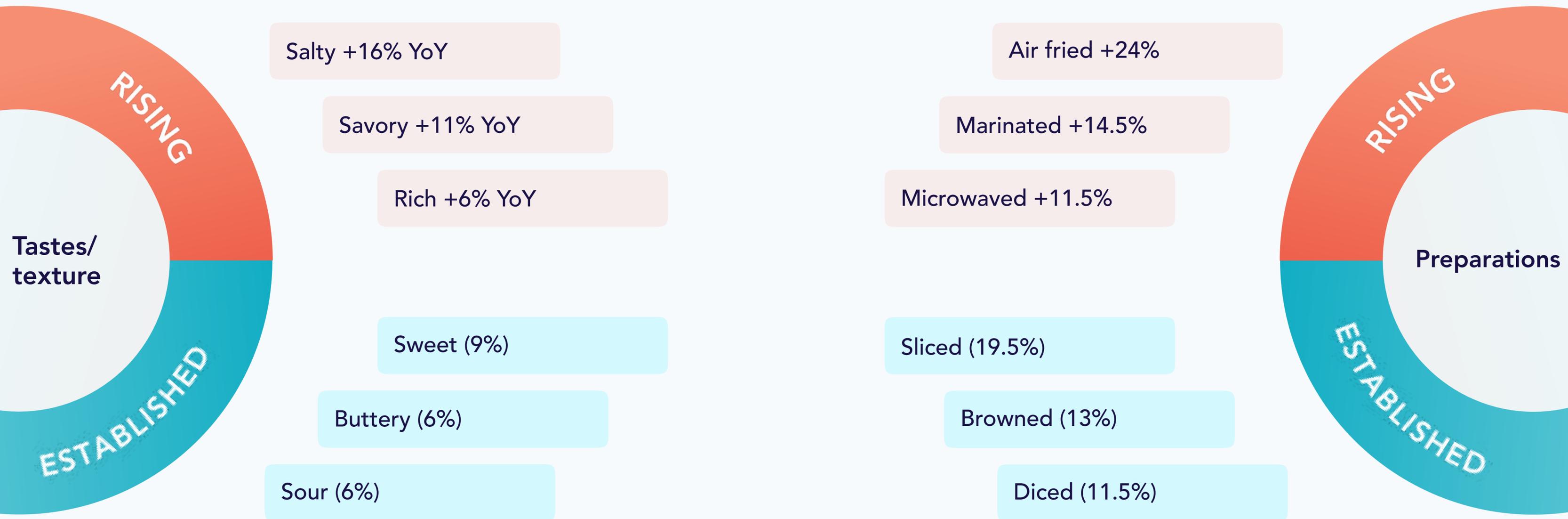
Protein is a top motivator for plant-based meat consumption. In what context do consumers prefer to eat alt meats when focusing on protein content?





Appendix: Protein Context

In what contexts do consumers prefer to eat alt meats when focusing on protein?

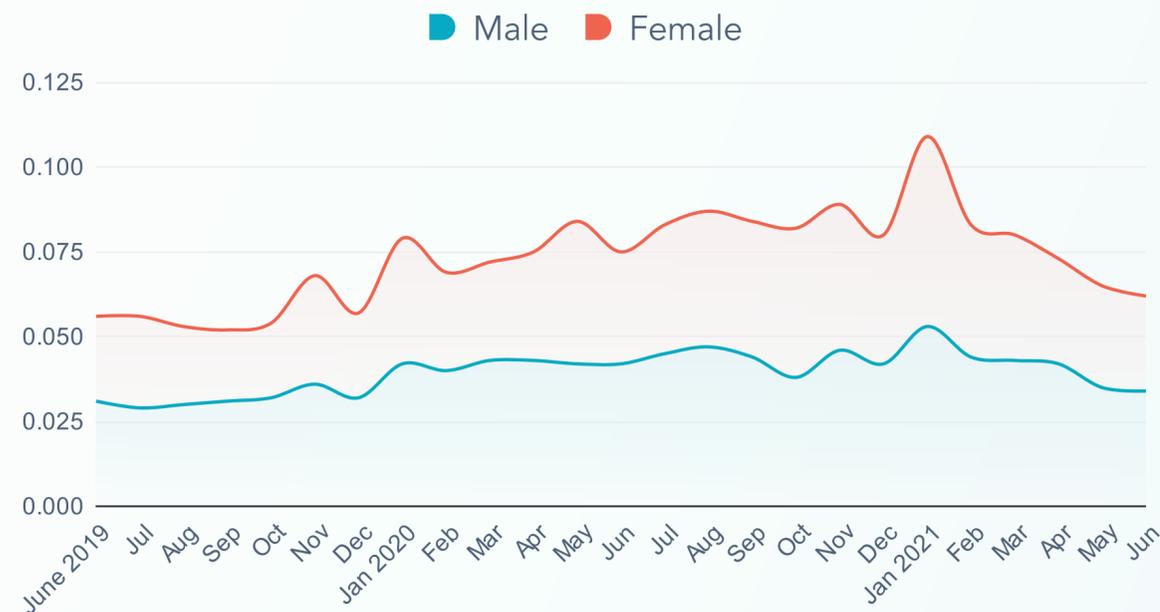




Appendix: Gender and generational trends

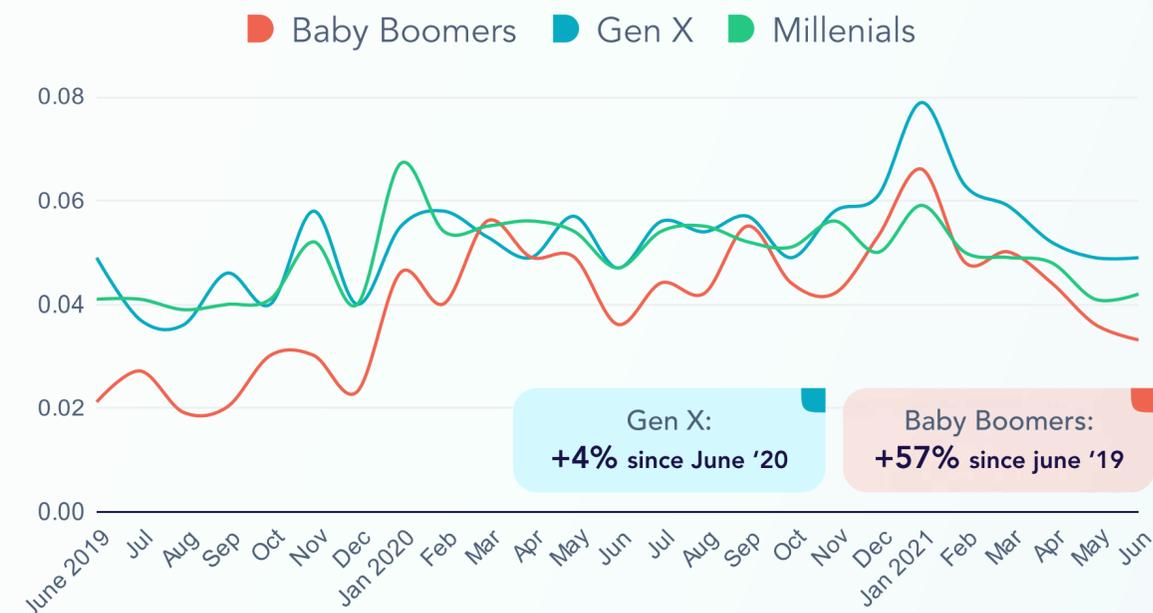
Women eat more meat alternatives than men (at more than 2x the rate!); Baby Boomers surprise with significant growth in interest.

Vegan Meat Consumption by Gender



Women eat more vegan meat than men. Women call out the convenience of vegan meat products/dishes almost 3x more than men; women are also 2.5x more interested in fitness-friendly vegan meat than men, while interest in the protein aspects of vegan meat is growing 3x faster among men than women.

Vegan Meat Consumption by Generation

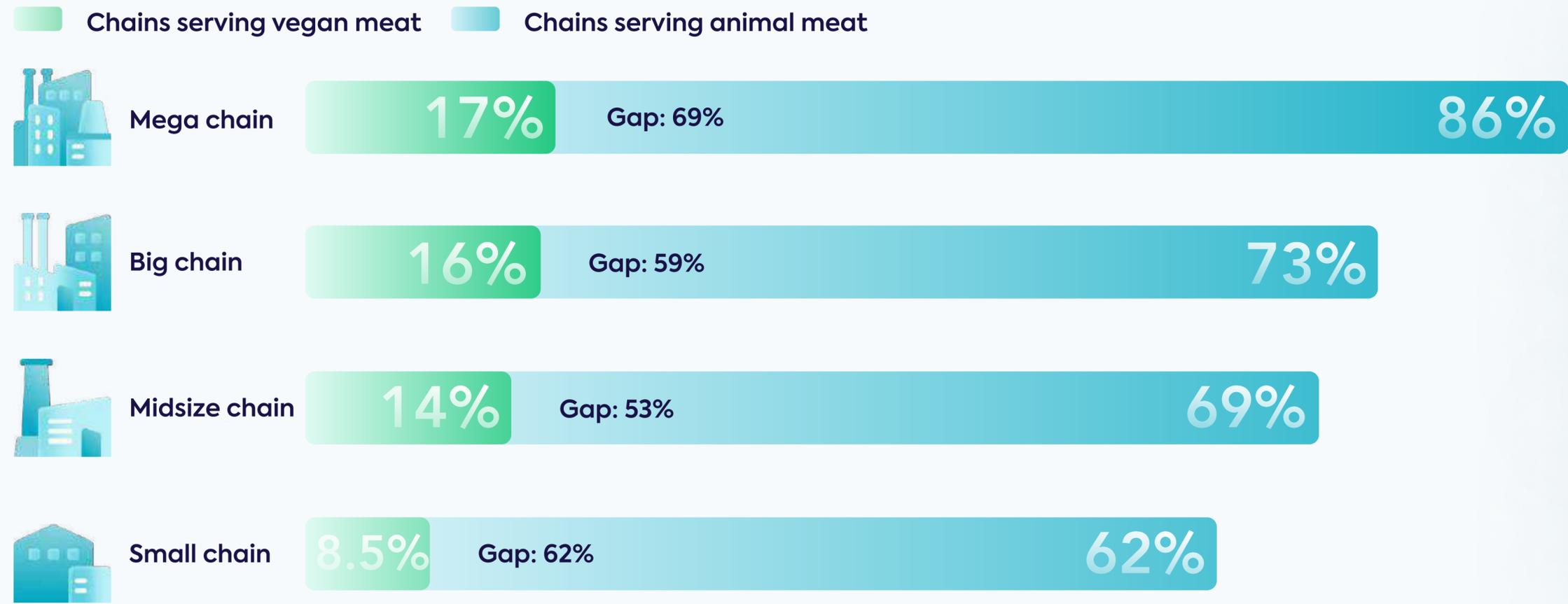


Millenials are fairly stable, with gen x showing recent growth. Baby Boomers surprisingly show significant growth over the past 2 years, potentially due to an increased association of plant-based with brain health among the aging audience.



Appendix: Meat alternatives in restaurant chains

13% of all chains in the US currently serve vegan meat; 78% serve animal-sourced meat.



Mega chains show the biggest gap between animal meat menu listings and vegan meat menu listings, indicating a sizeable room for growth for the category; small chains demonstrate the lowest penetration of vegan meat across all chains, indicating another area for growth.



Appendix: Classifications

*Chains are defined as:

- Single location (1 location);
- Small chain (2-10);
- Midsize chain (11-30);
- Big chain (31-300);
- Mega chain (301-max)

* Selected audiences are defined as:

- Baby Boomers: Ages 56 - 74
- Gen X: Ages 41 - 55
- Millennials: Ages 25 - 40
- Influencers: Social profiles with at least 10,000 followers, ranging across different interest areas. These include chefs, musicians, actors, lifestyle influencers, fitness trainers, food bloggers, public figures and more.

Note: “Beyond Meat” refers to the brand’s suite of products; “Impossible meat”(lowercase ‘m’) refers to Impossible Food’s suite of products. The brand is colloquially known as “Impossible”.

Note: We use “alt meat”, “plant-based meat”, “meat alternatives”, and “vegan meat” interchangeably in this report to refer to plant-based products or ingredients intended to replace one or more of the qualities of animal meat.

For further info on how we sourced any of the insights in this report, please reach out to miriama@tastewise.io