



The Blended Burger Sensory Test
Report
July, 2018



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Background & Objectives



Background

The Mushroom Blended Burger is a revolutionary concept poised to be adopted by the restaurant world. The Mushroom Council of America is looking for clear direction and insights to build and position a winning proposition.

To meet these objectives, the initiative was divided in two phases:

1. A series of focus groups* to:
 - Capture feedback that was meant to ensure an appealing and relevant consumer driven narrative
 - Get consumers' reaction to tasting the Blended Burger
2. A sensory test to:
 - Get consumers' opinion on important attributes such as taste, mouth feel, texture, etc.
 - Understand how these attributes compare, when placed side-by-side to competing products
 - Measure the level of appeal and relevance of the positioning statement



*Refer to BrandIQ Blended Burger topline for insights and additional information

Objectives

The sensory test was designed as a concept product fit test to expose consumers to the idea of a Blended Burger. The burger patties tested included:

- The Blend
- An all beef burger
- A plant-based burger

Business objectives:

- To demonstrate, to confirm, and to show, that consumers prefer The Blend over classic and new/trending burger options, and that Mushrooms Make Proteins Better.
- To confirm the blend recipe/standard of identity that is most enjoyed by consumers

Research objectives:

- To get consumers' feedback on attributes such as taste, mouth feel, texture, etc.
- And to understand how these attributes compare when placed side-by-side with comparable products
- Measure the level of appeal and relevance of the positioning statement



Methodology



Methodology

- Sample:
 - n=300
 - n=100 in each test group
- LOI: 25 minutes
- Location: 1 facility (Las Vegas)
- Sample Qualifications:
 - Must not be opposed to mushrooms
 - Must have eaten burgers/cheeseburgers in the past 30 days
 - Must have visited a QSR in the past 30 days
 - Must be trying to reduce meat intake and/or trying to add more vegetables to their diet
 - No food allergies/avoidances
 - No sensitive industries

Design:

- Sensory test with 3 rotations (blind, randomized)
- Each person rates all three burgers: The Blend, a beef burger and the plant-based
- Each burger receives 300 ratings and 100 first position ratings
- Each person assigned a product rotation once they qualify for the study
- Survey questions are answered as the sensory test occurs, with questions repeating for second and third rotation



Methodology

Prior to the first day of fielding, Chef Andrew Hunter traveled to Las Vegas to train the team members on how to cook the patties in a consistent, efficient and safe way.

Throughout the duration of the test, recruited respondents were given the option to build the 3 burgers in an identical fashion as they normally would.

Respondents entered the testing room in pairs. Each respondent was served half of each of the 3 burgers.

A rotation system was established prior to the test to ensure all three samples were seen and assessed the same amount of times by the same number of people.



Methodology

The Blend



All beef burger



The plant-based burger



On the grill



Preparing the burgers



Serving the burgers





Executive Summary

Executive Summary

With the exception of a few attributes, the blended burger outperforms beef burgers and the plant-based burger.

Its poor visual appeal is saved by the reveal of its unique ingredients, generating solid interest and purchase intent.



Taste, texture	Swallowing	The Blend
Eating Experience	Consistency	Concept fits product
<hr/>		
Quality	Dry	
Flavor Strength	Mouthfeel	
<hr/>		

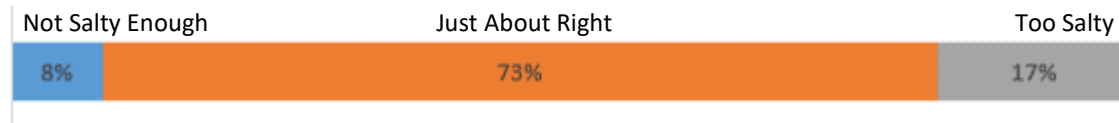


JAR Score Explanation

Just About Right (JAR) Scores

Just About Right (JAR)

- Measures consumer perceptions on individual product sensory attributes
 - Each attribute can be considered as fairly optimal (JAR), too high or too low
 - For example, saltiness could be just about right, too salty or not salty enough.



- For each attribute, having >80% of consumers find it Just About Right is ideal
- An attribute that is rated JAR by at least 70% of consumers is acceptable, below that signals an opportunity for improvement

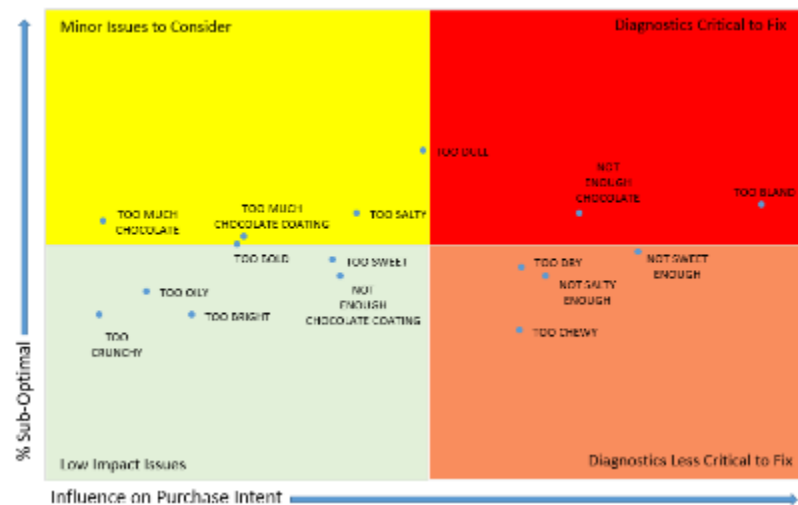
Too High or Too Low

- If over 20% of consumers find an attribute too high or too low, it is an area for improvement, if between 15-20% of consumers view it as such, it is a potential area for improvement

Using JAR Scores to calculate penalty analyses

Penalty analyses show how attribute perceptions impact purchase intent

- The mean scores for liking among consumers who rated an attribute JAR, and those who found it too high or too low are calculated, followed by the difference scores (JAR-Too High; JAR-Too Low)
- The liking difference scores and the proportion of consumers that found an attribute too high or too low are used to calculate penalty scores
- Penalty scores are then charted to help visualize which attributes require adjustment and which are less critical



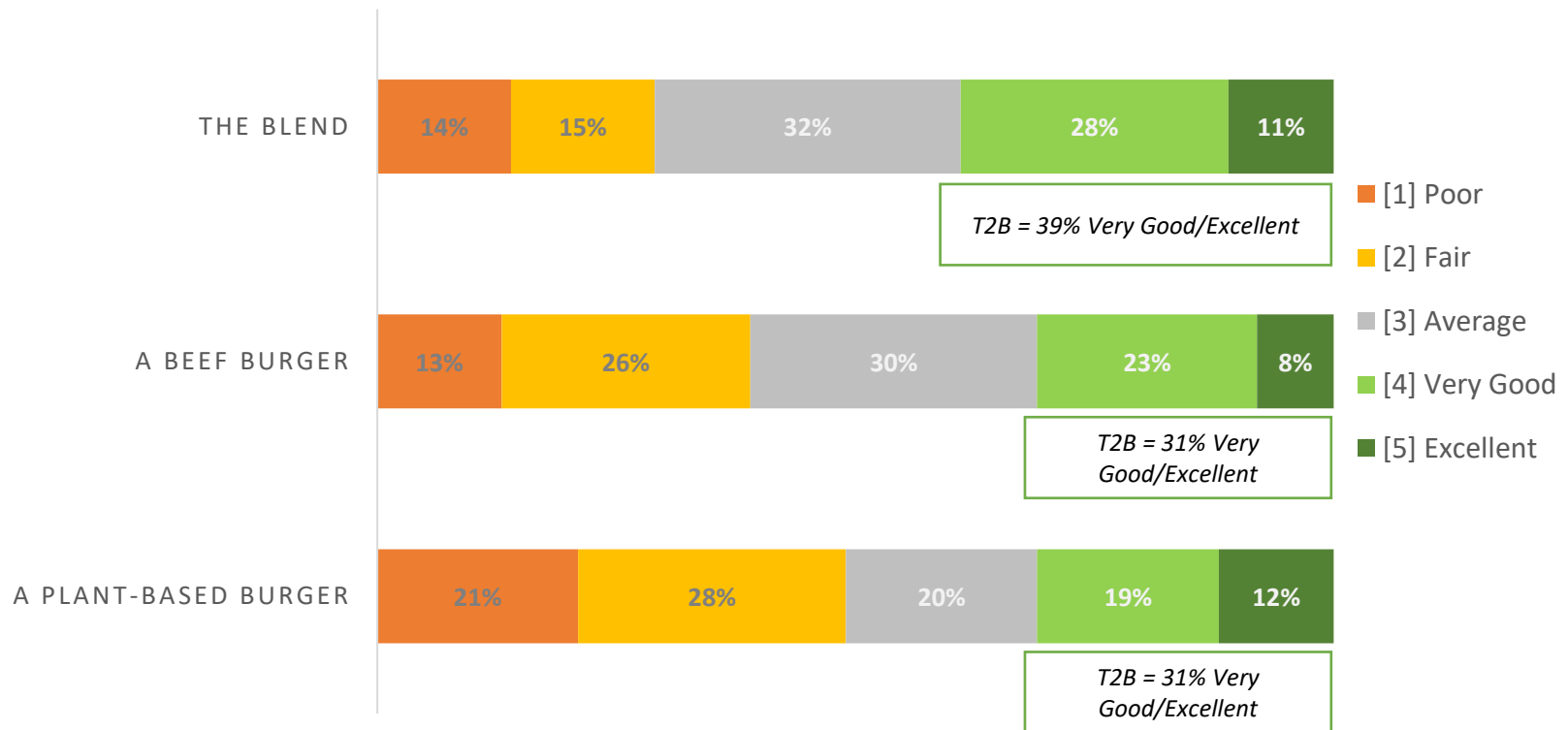


The First Look

(pre-sensory)

The Blend wins over the beef burger and the plant-based burger on initial impression

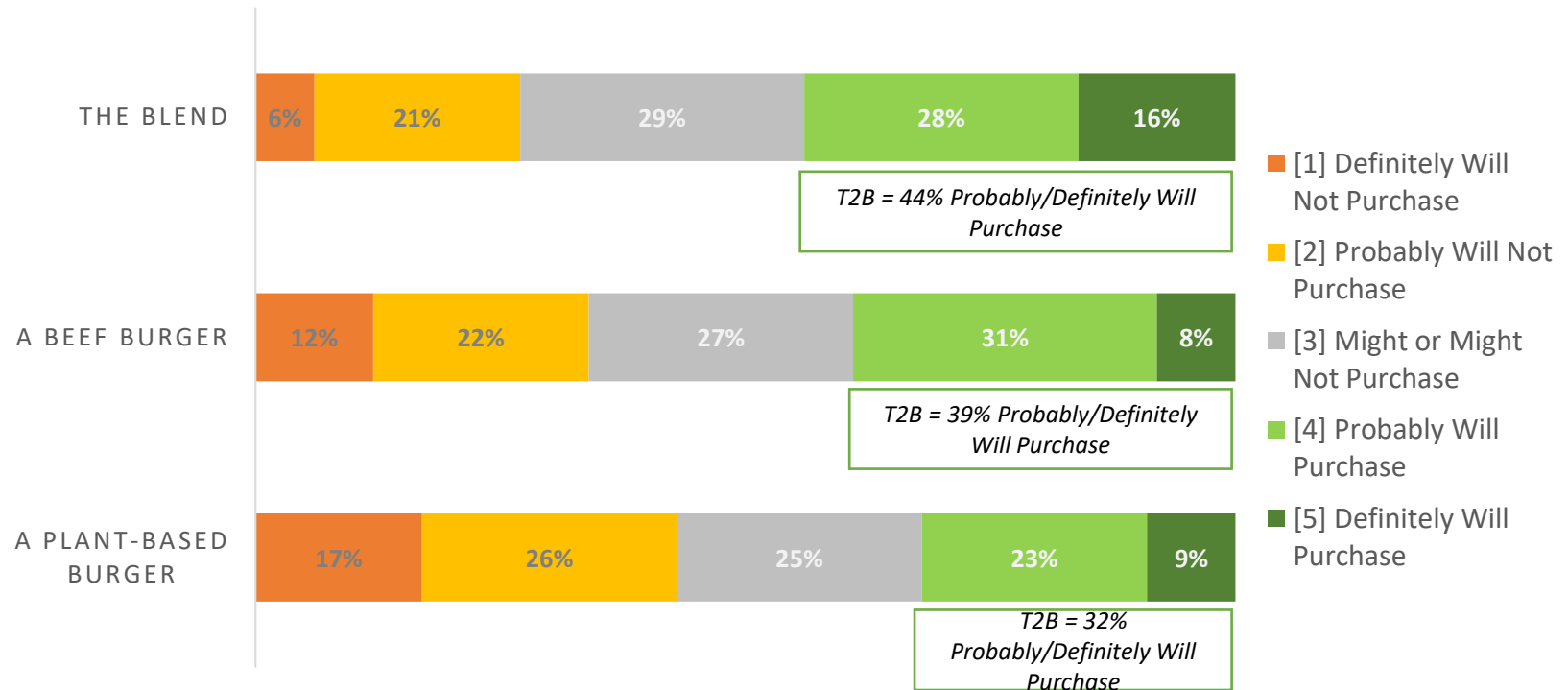
HOW WOULD YOU RATE THE OVERALL APPEARANCE OF THIS BURGER?



Among first-tasters of each burger.
Q1. How would you rate the overall appearance of this burger?

Based on appearance, consumers are more likely to purchase The Blend over the beef burger and the plant-based burger

HOW LIKELY WOULD YOU BE TO PURCHASE THIS BURGER BASED ON APPEARANCE ONLY?



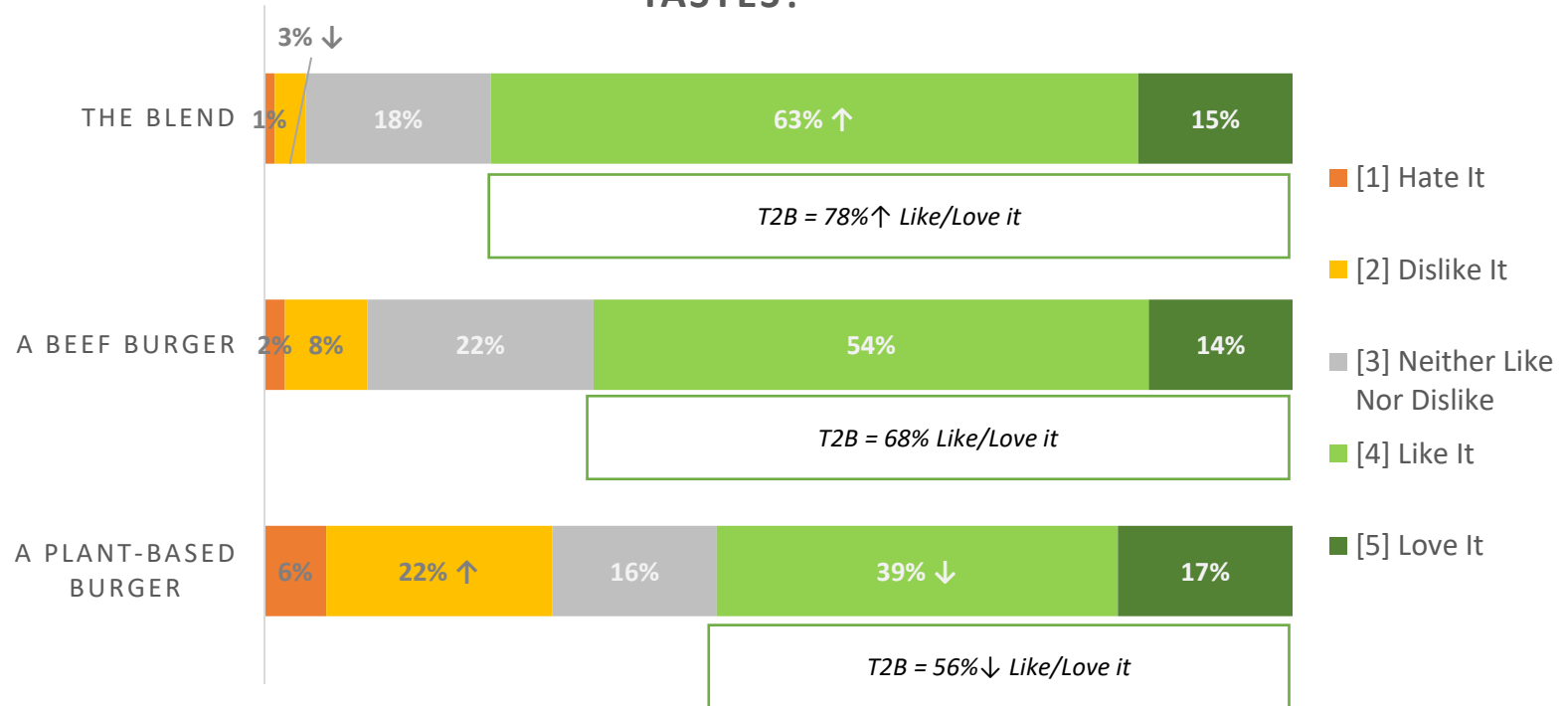
Among first-tasters of each burger.
Q2. How likely would you be to purchase this burger based on appearance only?



Post Tasting Diagnostics

First position diagnostics indicate that consumers like the taste of The Blend more than the taste of the other two burgers

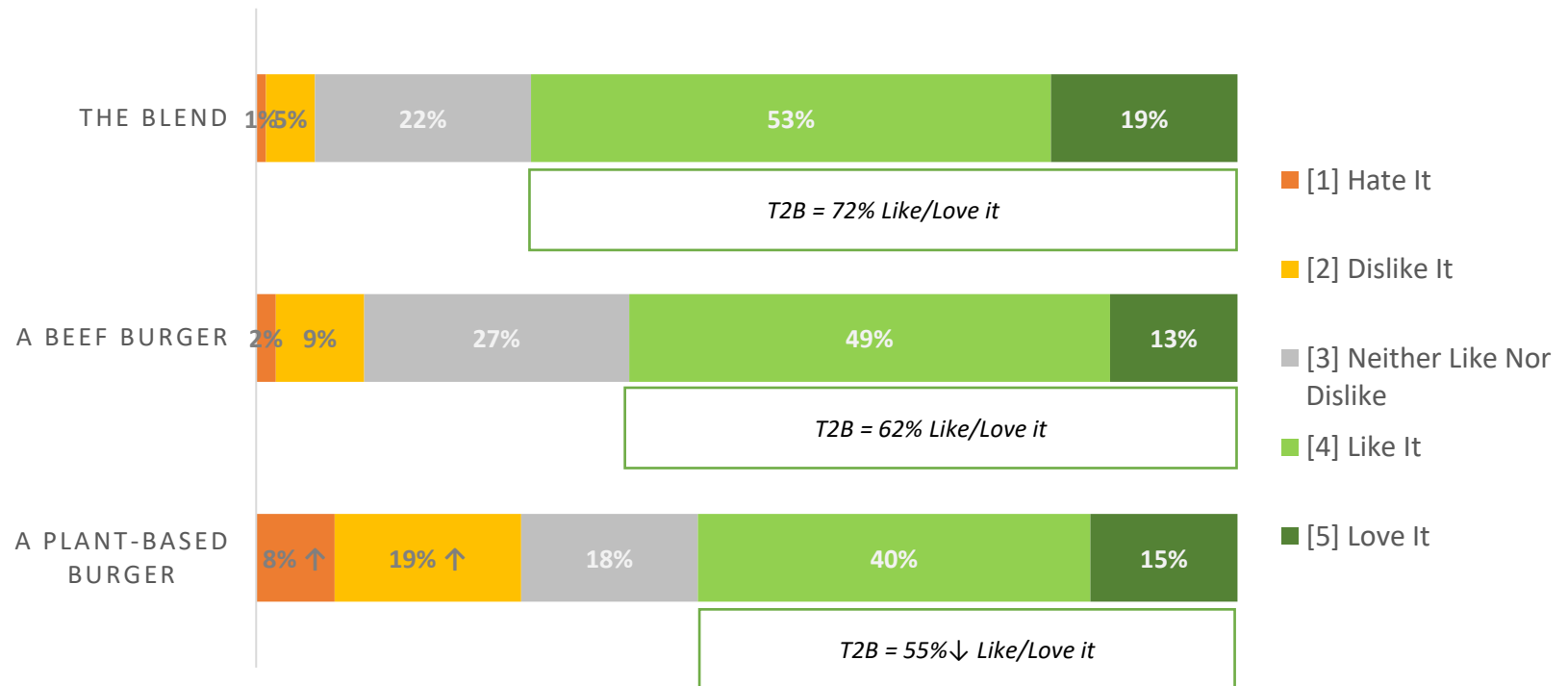
HOW MUCH DO YOU LIKE OR DISLIKE THE WAY THIS BURGER TASTES?



Among first-tasters of each burger.
Arrows indicate direction of statistically significant difference between overall ratings.
Q3. How much do you like or dislike the way this burger tastes?

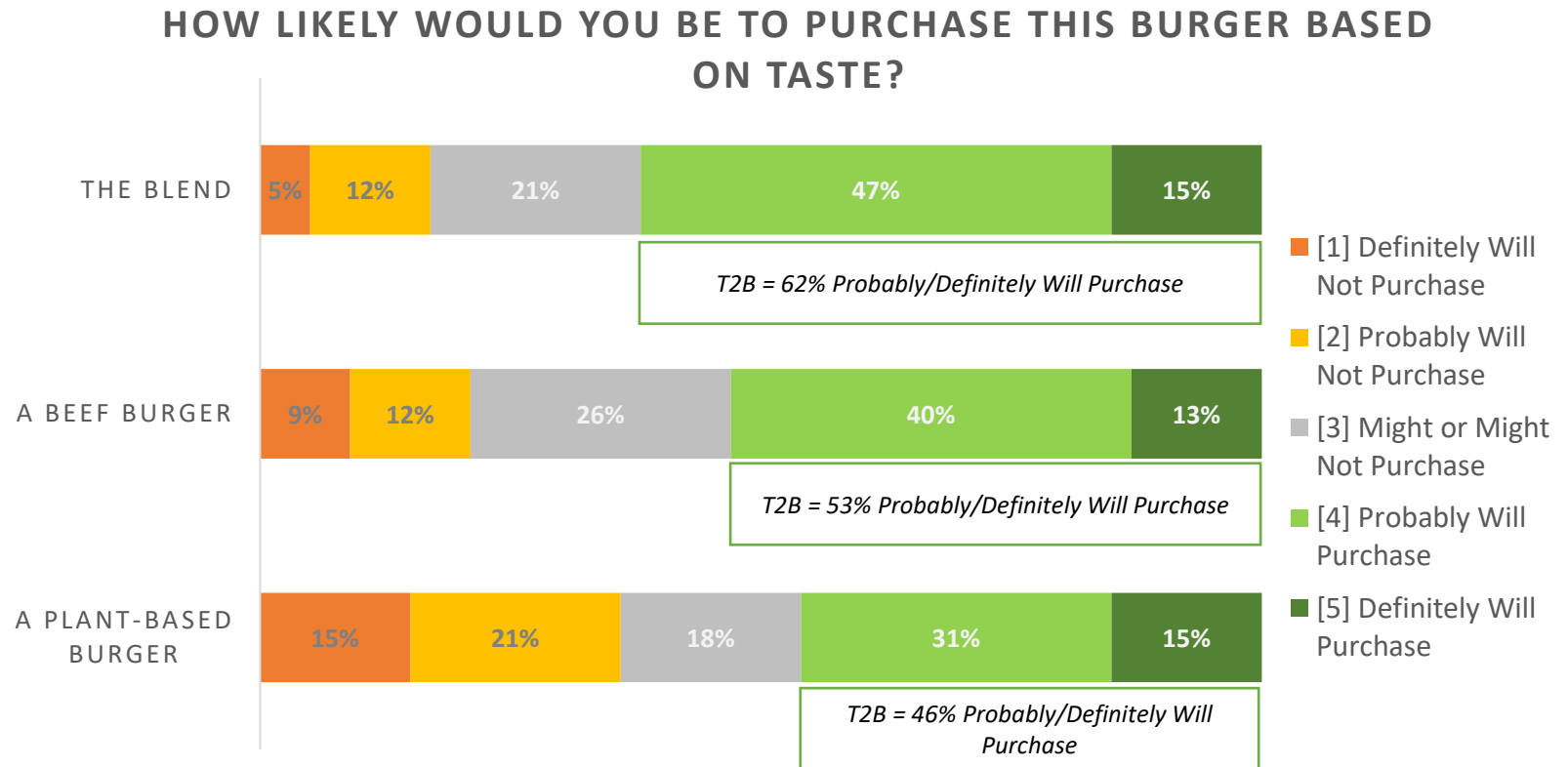
The Blend scores high marks for eating experience

HOW WOULD YOU RATE THE OVERALL EATING EXPERIENCE?



Among first-tasters of each burger.
Arrows indicate direction of statistically significant difference between overall ratings.
Q4. How would you rate the overall eating experience?

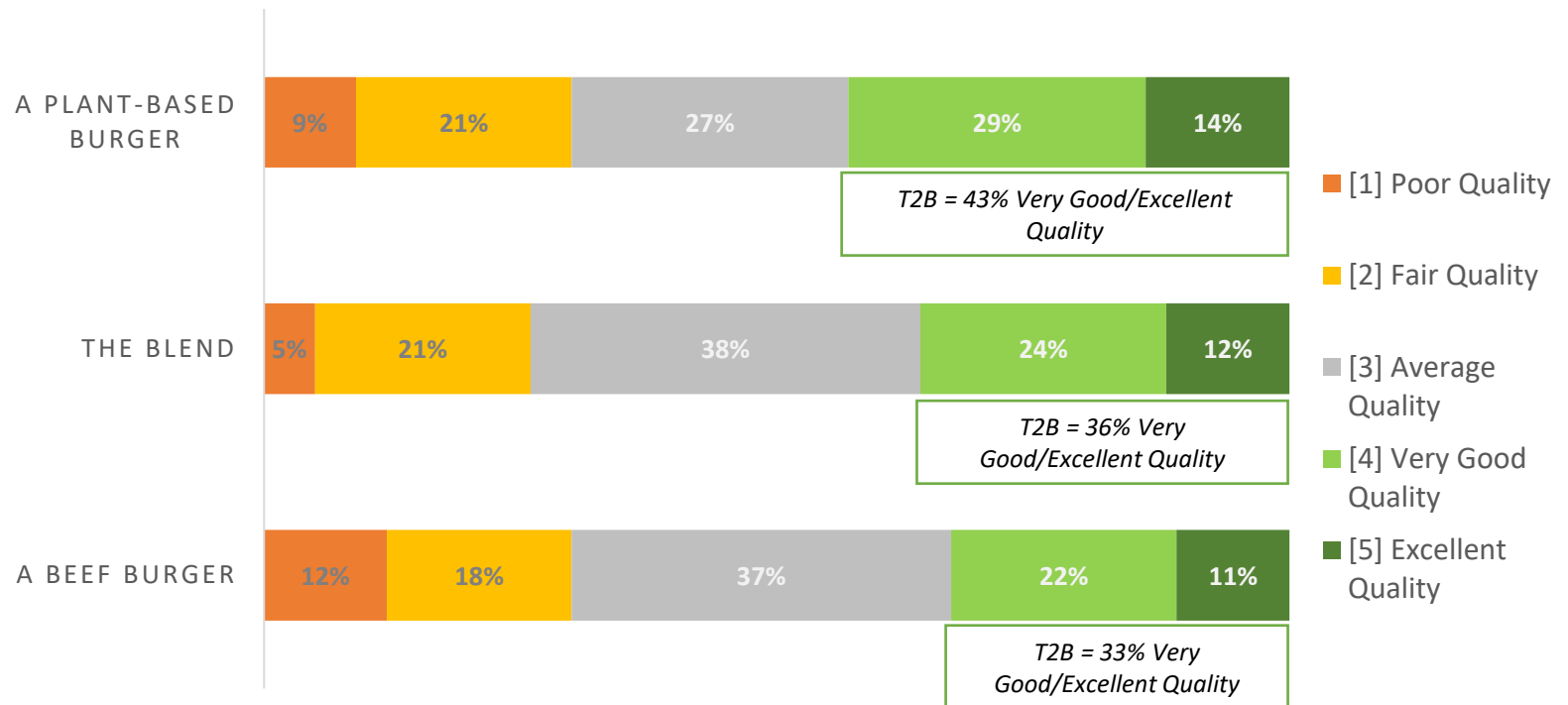
Based on taste, close to two-thirds of consumers would buy The Blend, while roughly half indicate they would buy the others



Among first-tasters of each burger.
Q5b. How likely would you be to purchase this burger based on taste?

When it comes to quality, The Blend is rated slightly higher than the beef burger

HOW WOULD YOU RATE THE QUALITY OF THIS BURGER?

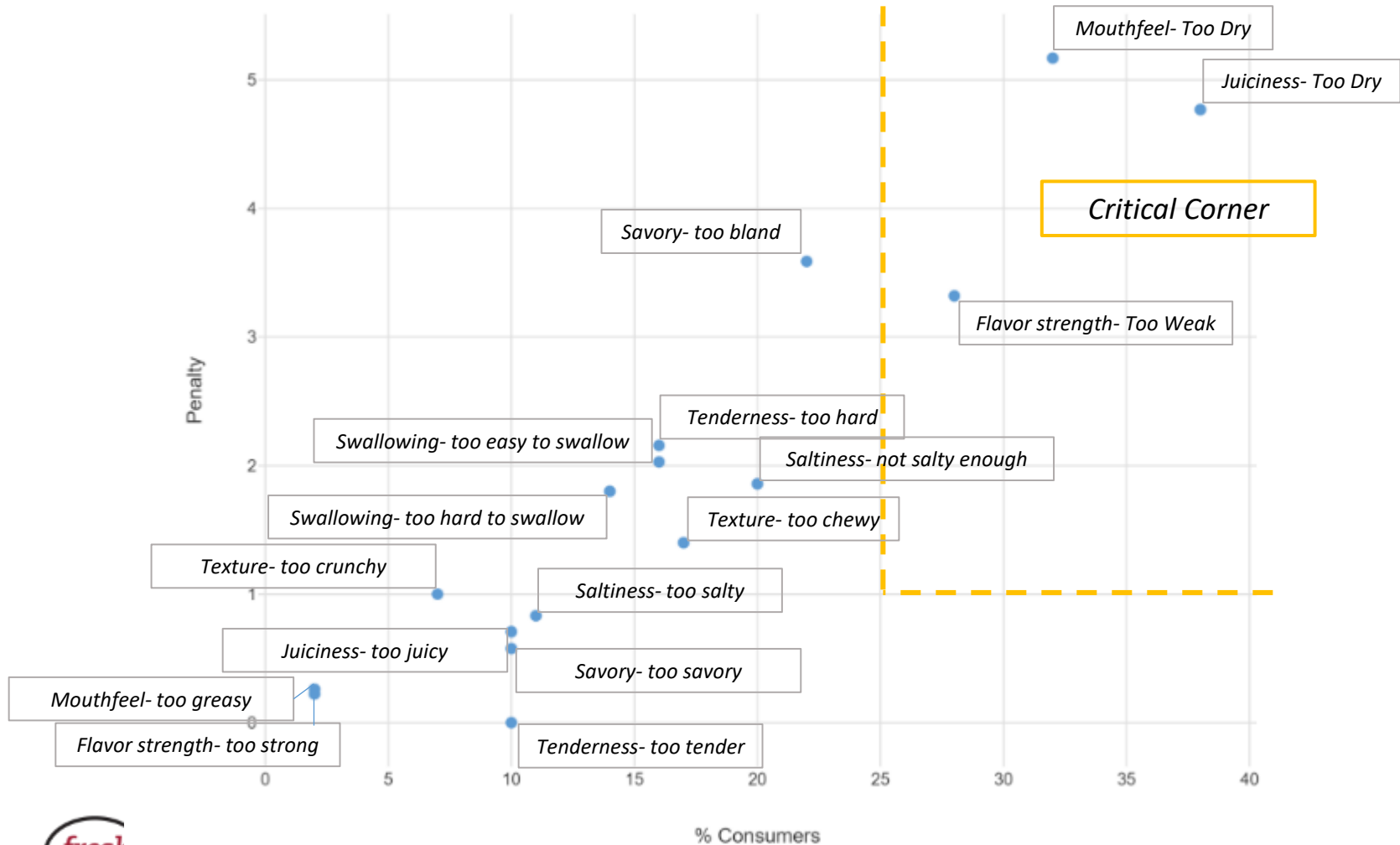


Among first-tasters of each burger.
Q6. How would you rate the quality of this burger?



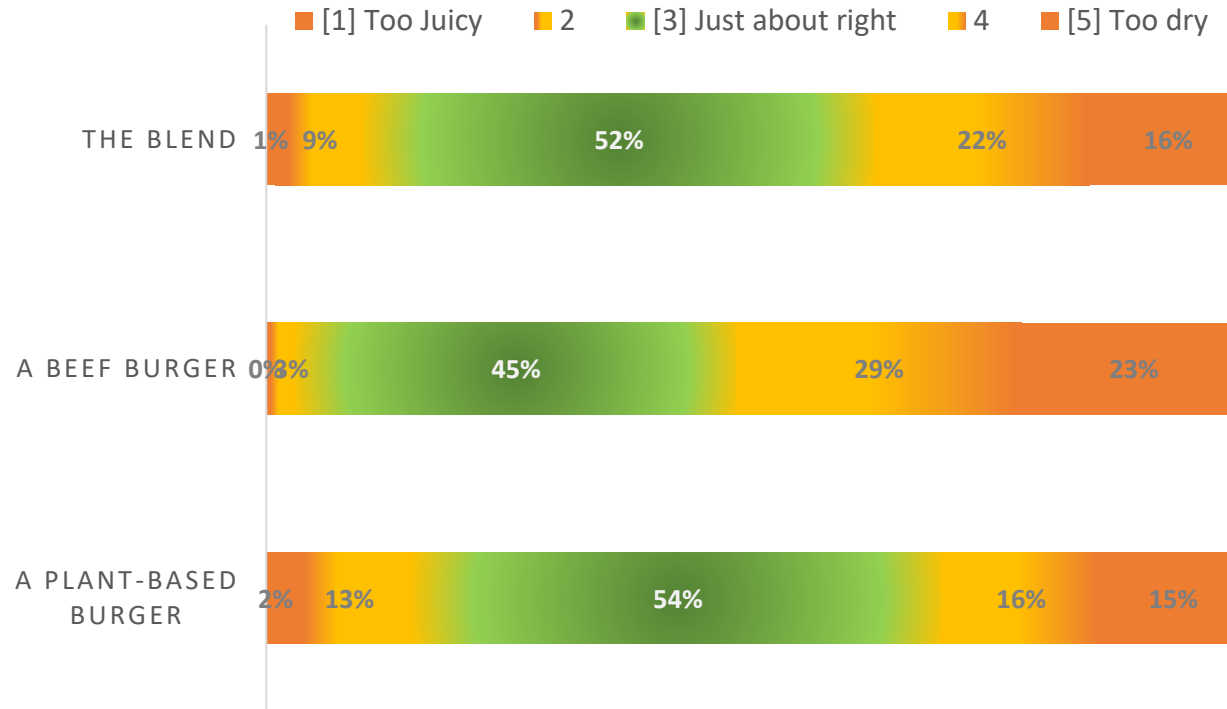
JAR Analyses

A penalty analysis suggests that The Blend is too weak in flavor and too dry for some consumers, which drives them away from liking the burger more



The Blend is juicier than the beef burger

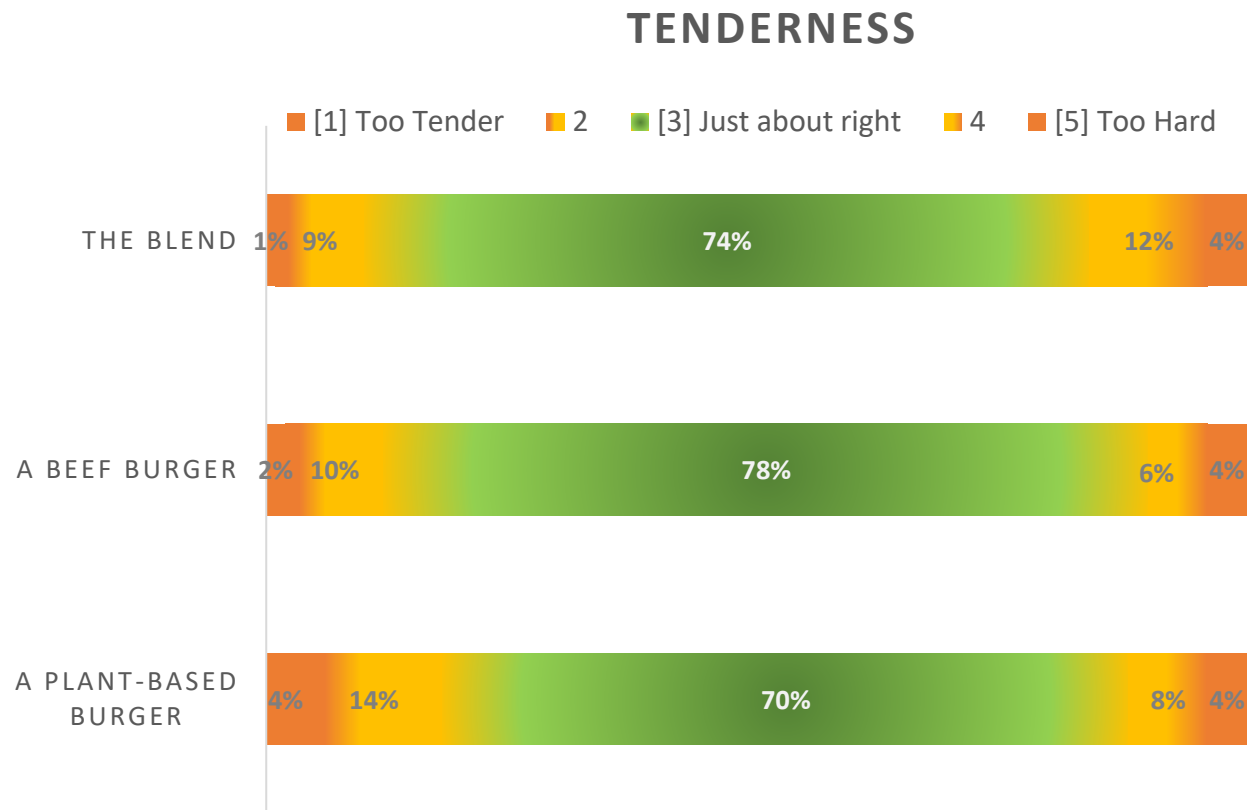
JUICINESS



Among first-tasters of each burger.

Q9. Please rate the burger you just tasted on the following characteristics. Please select the spot that comes closest to how you feel about it. [Juiciness]

All three burgers perform well on tenderness

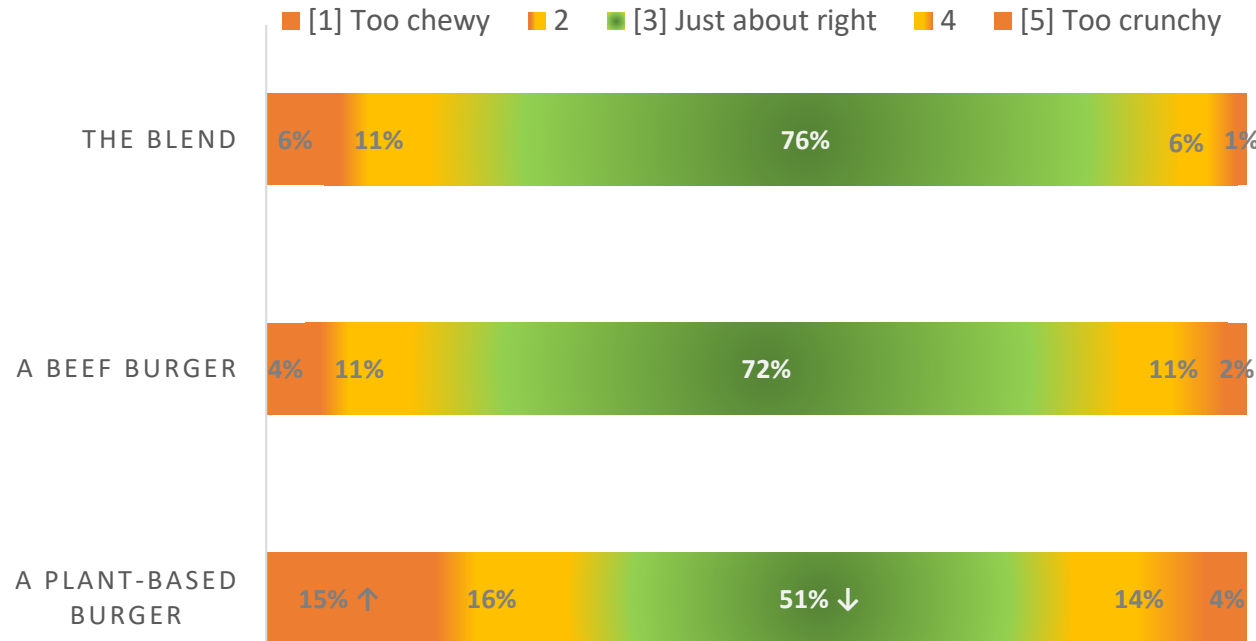


Among first-tasters of each burger.

Q9. Please rate the burger you just tasted on the following characteristics. Please select the spot that comes closest to how you feel about it. [Tenderness]

The Blend is perceived to have the right texture, outperforming the beef burger and significantly better than the plant-based burger

TEXTURE



Among first-tasters of each burger.

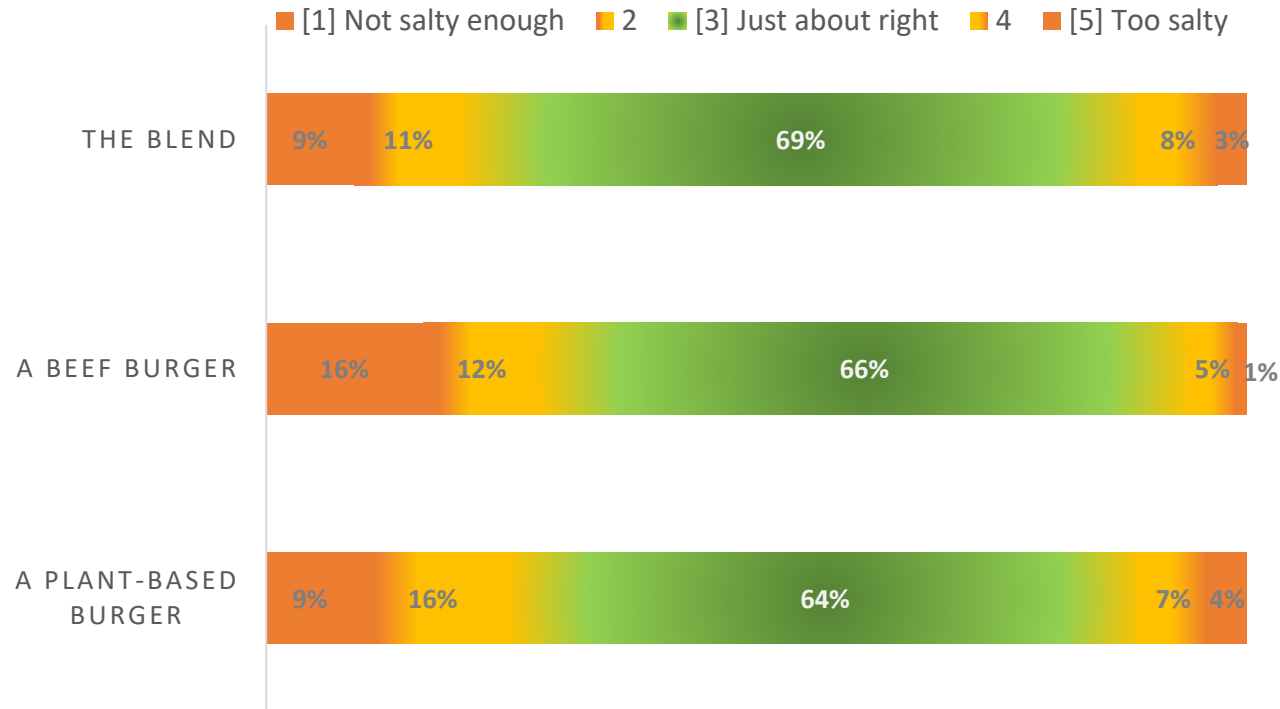
Arrows indicate direction of statistically significant difference between overall ratings.

Q9. Please rate the burger you just tasted on the following characteristics. Please select the spot that comes closest to how you feel about it. [Texture]



Although all burgers score similarly on saltiness, The Blend has a slight advantage over its competitors

SALTINESS

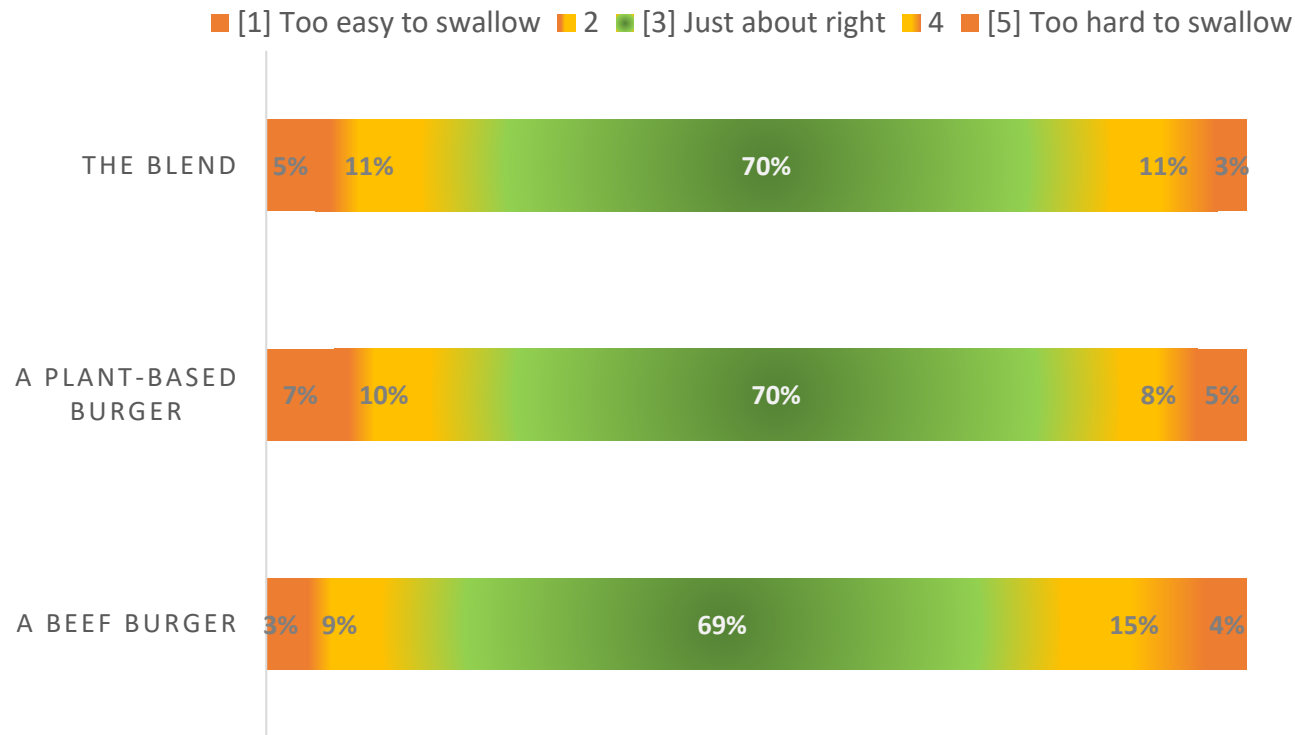


Among first-tasters of each burger.

Q9. Please rate the burger you just tasted on the following characteristics. Please select the spot that comes closest to how you feel about it. [Saltiness]

The consistency of The Blend makes it slightly easier to swallow than the beef burger

SWALLOWING

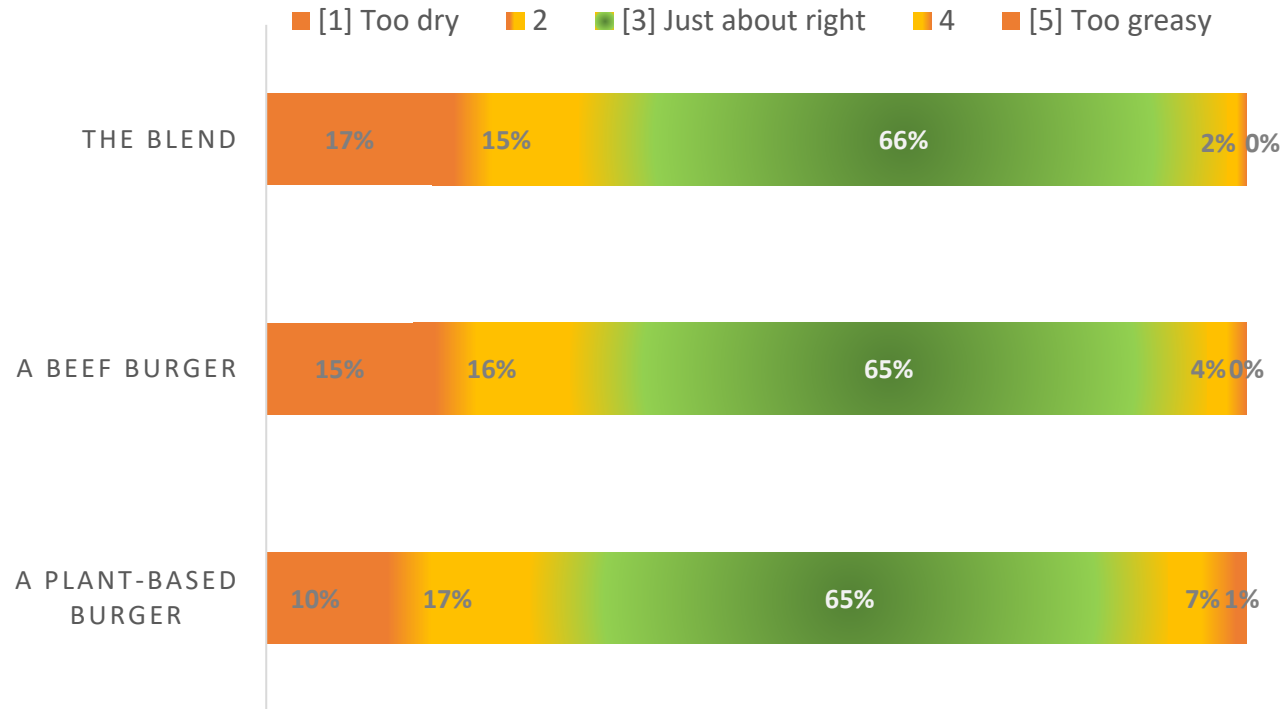


Among first-tasters of each burger.

Q9. Please rate the burger you just tasted on the following characteristics. Please select the spot that comes closest to how you feel about it. [Swallowing]

All three burgers offer similar mouthfeel

MOUTHFEEL

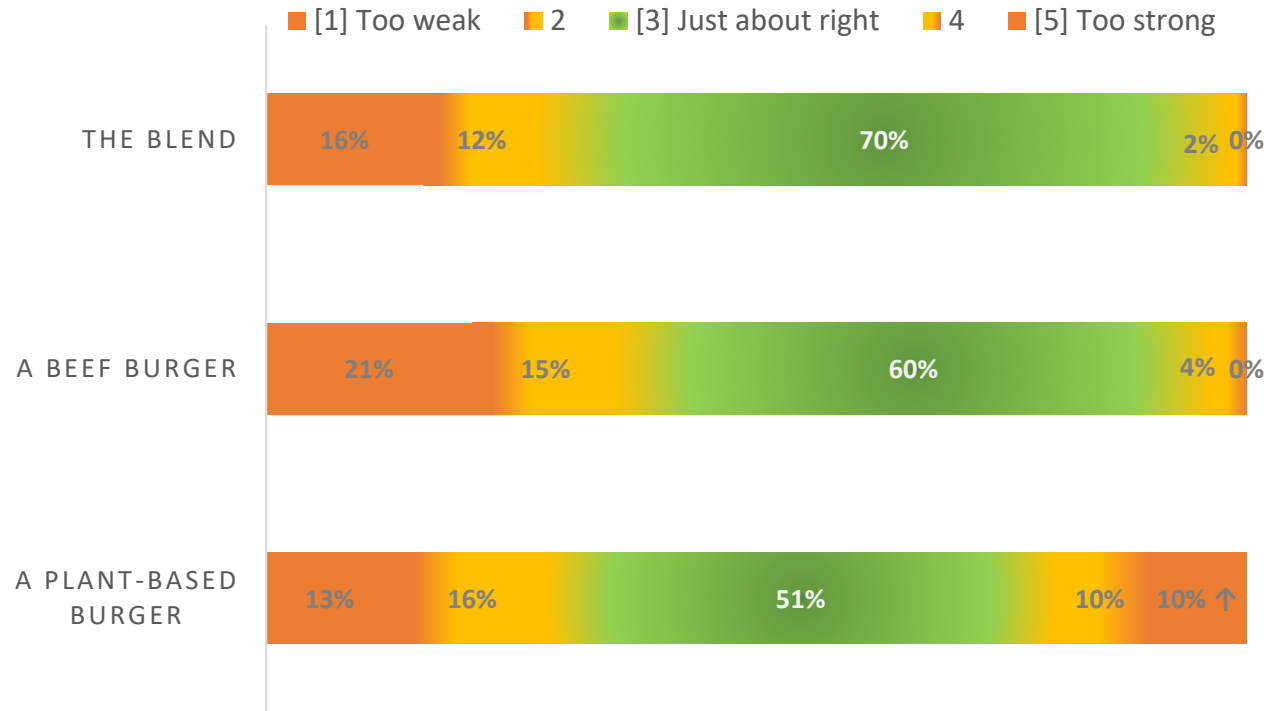


Among first-tasters of each burger.

Q9. Please rate the burger you just tasted on the following characteristics. Please select the spot that comes closest to how you feel about it. [Mouth Feel]

The Blend ranks high on flavor strength

FLAVOR STRENGTH



Among first-tasters of each burger.

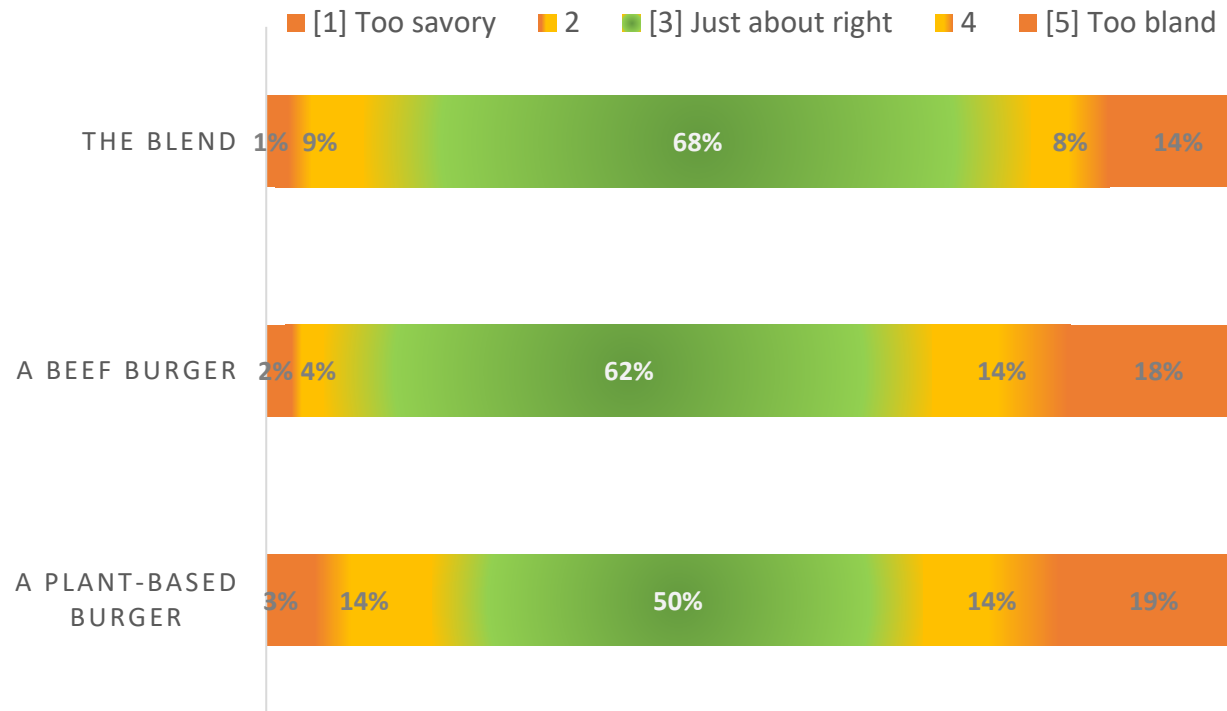
Arrows indicate direction of statistically significant difference between overall ratings.

Q9. Please rate the burger you just tasted on the following characteristics. Please select the spot that comes closest to how you feel about it. [Flavor Strength]



The Blend is the most savory and shows the lowest number of consumers thinking it is too bland

SAVORY



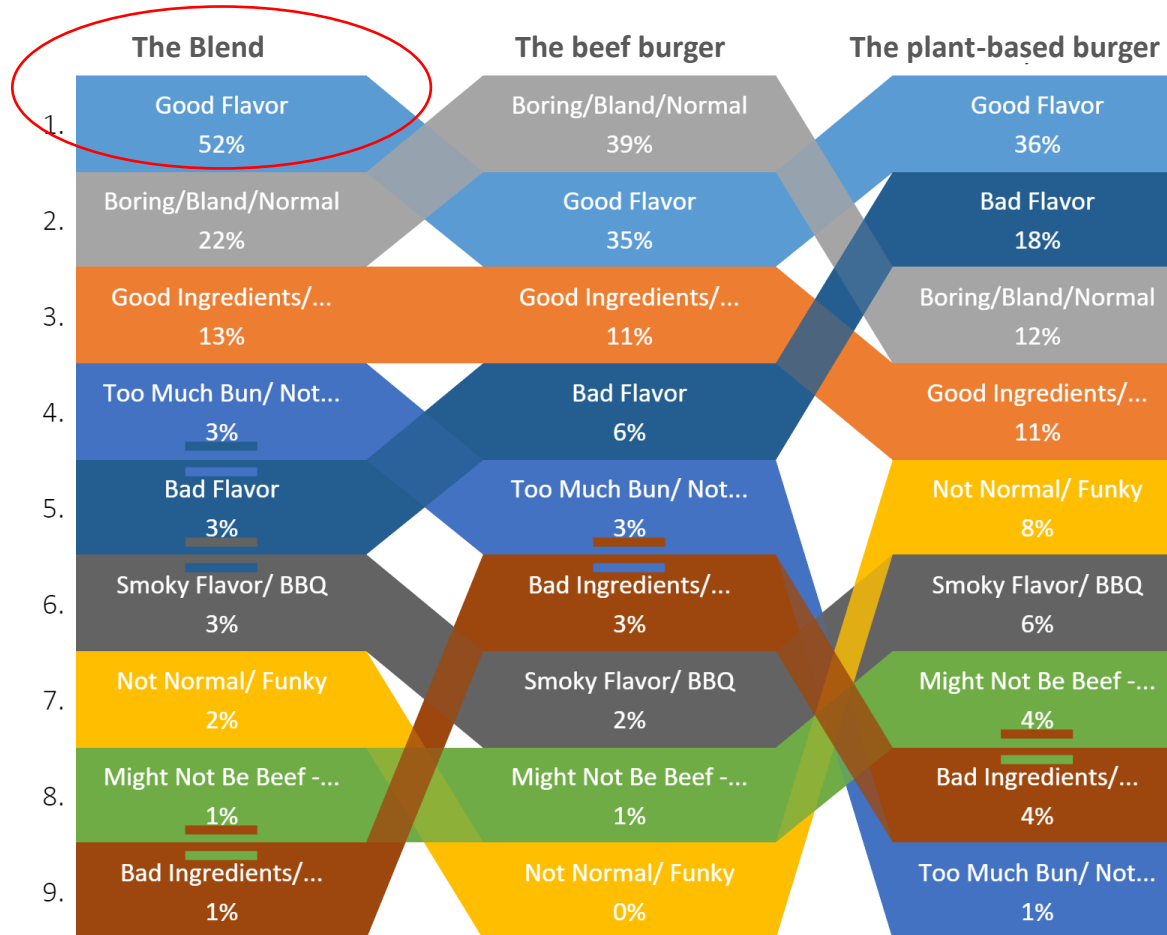
Among first-tasters of each burger.

Q9. Please rate the burger you just tasted on the following characteristics. Please select the spot that comes closest to how you feel about it. [Savory]



Other Thoughts

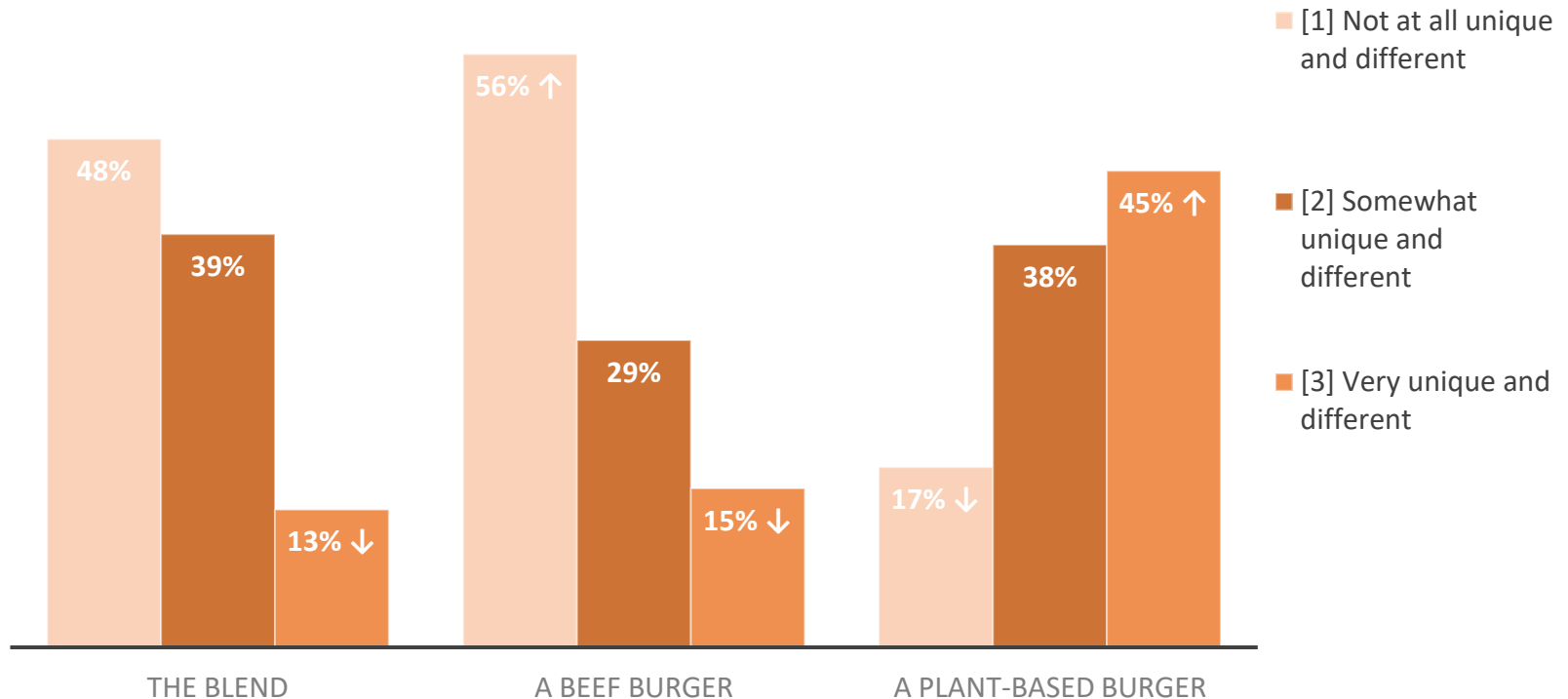
Liking of The Blend is mostly driven by its good flavor



Q4. What is it about the taste of this burger specifically that makes you say you [INSERT BASED ON Q3 RESPONSE: hate it/dislike it/neither like nor dislike it/like it/like it a lot/love it]? Please be as specific as possible. [Categorization based on which burger was tasted; among first rotation.]

The Blend and the beef burger are seen as equally mainstream, while the plant-based burger emerges as different

HOW UNIQUE AND DIFFERENT IS THIS BURGER?

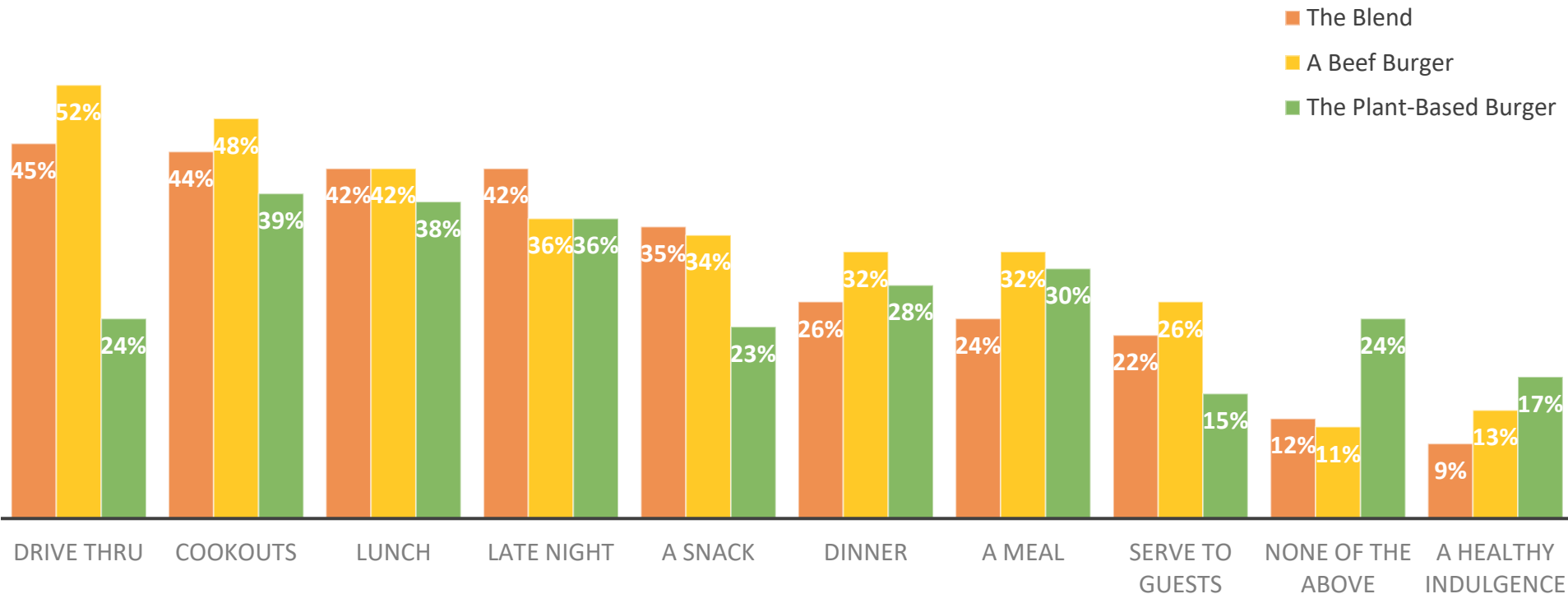


Among first-tasters of each burger.

Arrows indicate direction of statistically significant difference between overall ratings.
Q10. How unique and different is this burger?

Among the top rated circumstances when consumers would eat or serve The Blend are: a drive thru, cookouts, lunch or late night

UNDER WHAT CIRCUMSTANCES WOULD YOU EAT OR SERVE THIS BURGER?



Among first-tasters of each burger. Only "Yes" responses are shown.
Arrows indicate direction of statistically significant difference between ratings.
Q11. Under what circumstances would you eat or serve this burger?

Consumers would expect to find The Blend at various fast food restaurants, supermarkets and grocery stores, and at home or BBQ/cookouts

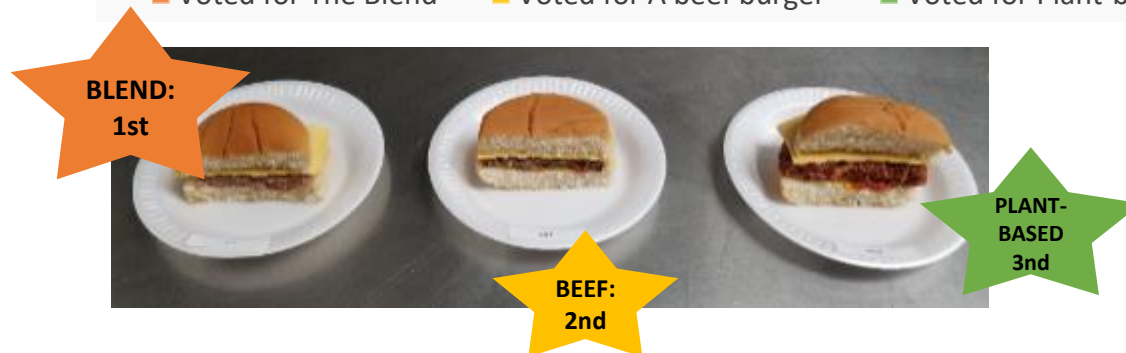
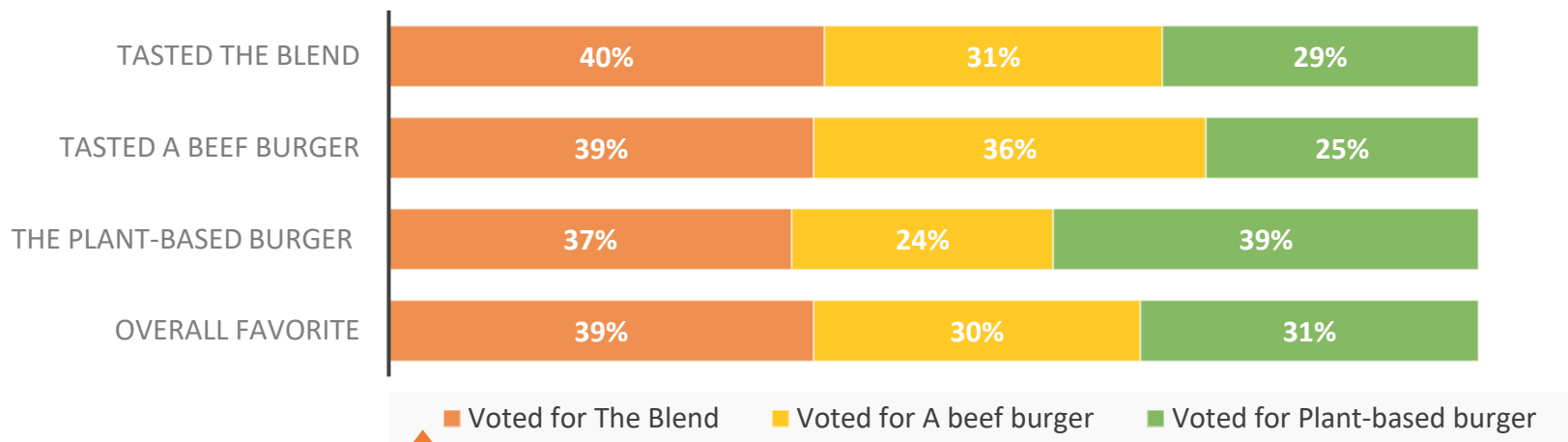


Among first-tasters of The Blend.

Q12A. Where would you expect to find a burger like this? [Open End responses]

Overall, consumers like The Blend the best, followed by the beef burger and the plant-based burger

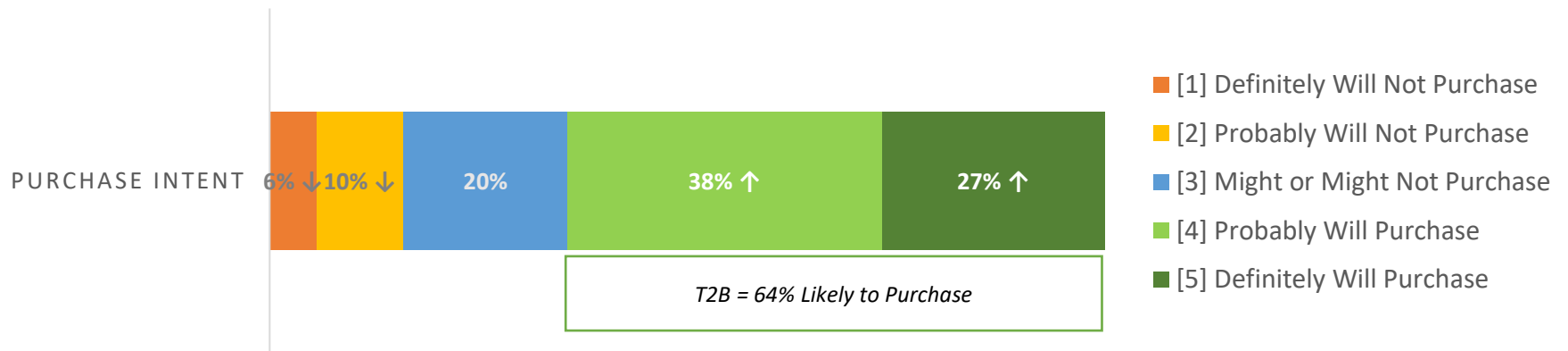
OUT OF THE THREE BURGERS YOU TRIED TODAY, WHICH ONE DO YOU LIKE BEST?



Among first-tasters of each burger.
Q14. Out of the three burgers you tried today, which one did you like best?

Upon reveal, purchase intent increased with about two-thirds of consumers saying they are likely to purchase The Blend

NOW THAT YOU KNOW MORE ABOUT THE BLEND BURGER, HOW LIKELY ARE YOU TO PURCHASE IT?

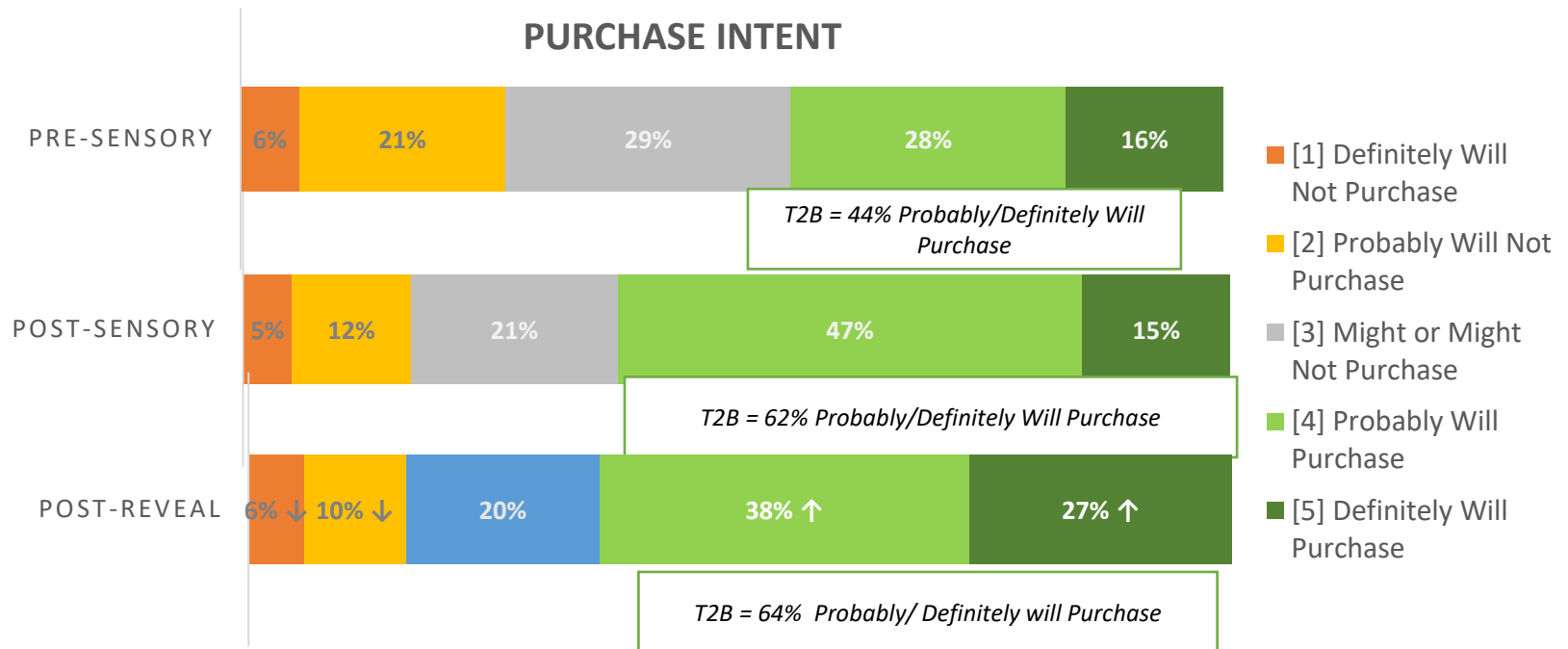


Among first-tasters of each burger.

Arrows indicate direction of statistically significant difference between ratings.

Q22. Now that you know more about the blend burger, how likely are you to purchase it?

The Blend scores the highest on purchase intent pre-sensory test, its numbers keep increasing as consumers learn more about The Blend



Pre-Sensory: How likely would you be to purchase this burger based on appearance only?

Post-Sensory: How likely would you be to purchase this burger based on taste?

Post-Reveal: Now that you know more about The Blend burger, how likely are you to purchase it?

Based on feedback from the Focus Groups and some creative leaps, the following positioning statement was developed and presented to consumers as part of the survey

The Blend

For those days when you've got a craving for one of your favorites, we crafted a gloriously mouthwatering burger.

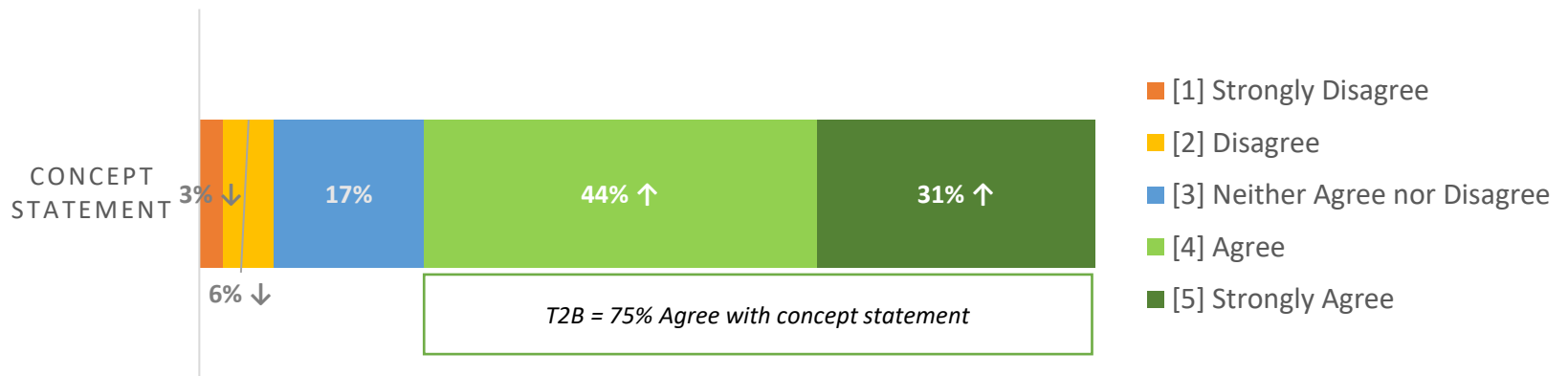
Introducing The Blend, a delicious burger made of just three high quality ingredients: 100% pure beef, chopped fresh mushrooms and savory seasonings that are cooked right-in. Steakhouse flavor in your favorite burger.

The Blend has 25% less fat without sacrificing flavor. Now, you can finally treat yourself and treat yourself well.



There seem to be a good fit between the concept and the product itself

HOW MUCH DO YOU AGREE OR DISAGREE THAT THE CONCEPT YOU JUST READ IS A GOOD WAY TO DESCRIBE THIS BURGER?

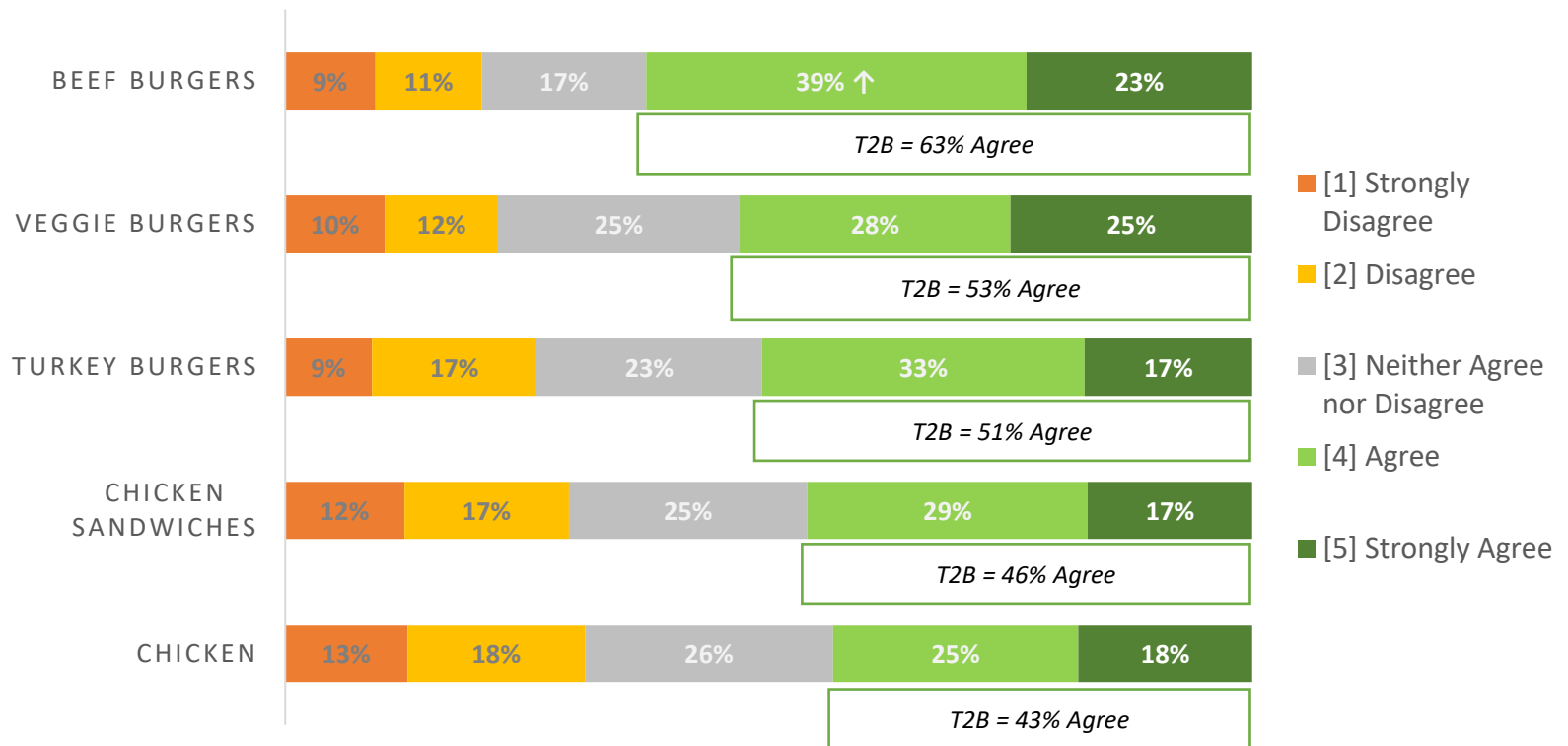


Among first-tasters of each burger.

Q23. How much do you agree or disagree that the concept you just read it a good way to describe this burger?

The Blend is a good alternative to beef burgers and even to chicken sandwiches

THE BLEND IS A BETTER ALTERNATIVE TO ...

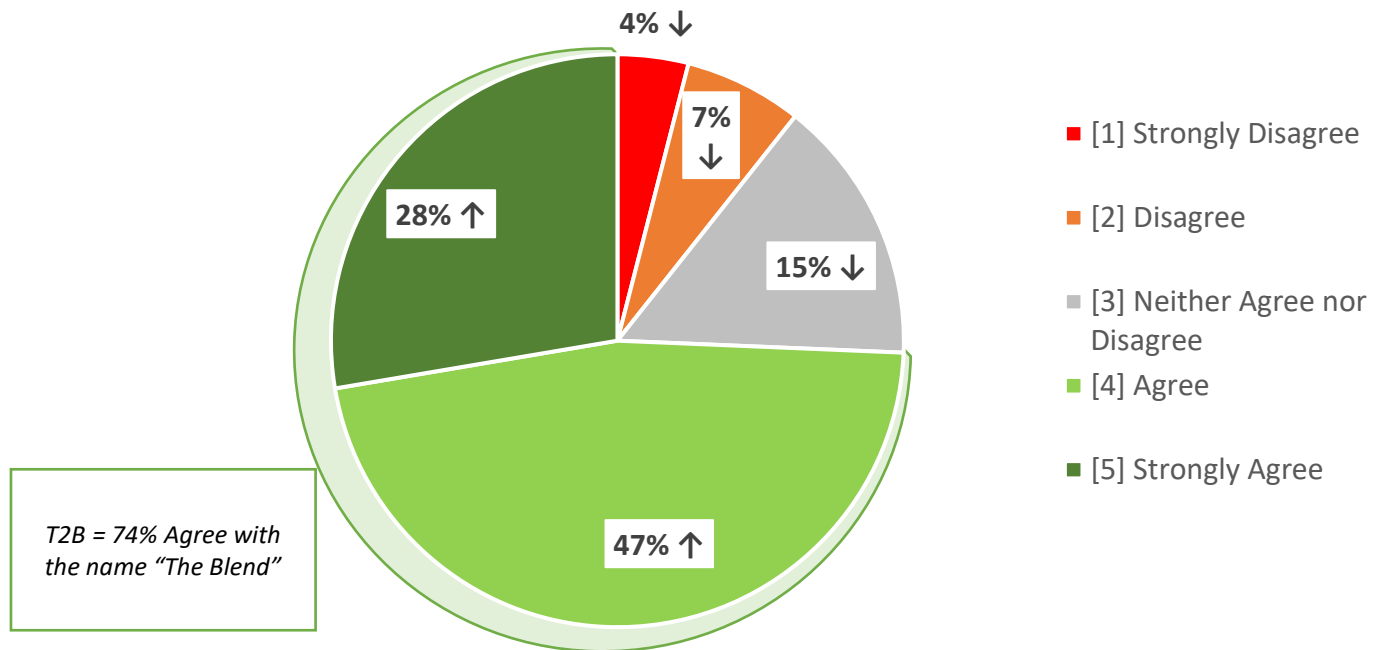


Among first-tasters of each burger.

Q24. How much do you agree or disagree that The Blend is a better alternative to ... ?

“The Blend” is a suitable name for the burger, according to 74% of consumers

THE BLEND FITS THE BURGER





Conclusions

Conclusions

- Even prior to tasting The Blend, consumers find it more appealing than they find the beef burger and the plant-based burger
- Pre-reveal purchase intent is higher than what was indicated for the other two burgers. This metric boosted slightly upon reveal of The Blend's recipe
- The Blend scores the highest in flavor. This supports the hypothesis that mushrooms make meat better
- The Blend scores positive marks for **tenderness, texture, swallowing, consistency, saltiness and savory attributes**
- The Blend is seen as mainstream and on the same frame of reference as the beef burger. This represents a significant advantage that will contribute to decreasing barriers to product adoption
- Consumers see a good fit between the product and the positioning concept. The Blend being the most adequate name according to the majority
- The Blend is seen as a good alternative to beef and veggie burgers, turkey burgers and chicken sandwiches
- **The Blend is expected to be found at a variety of outlets such as QSRs and supermarkets. It also fits a variety of occasions from drive thru, cookouts and snacking.**



Appendix



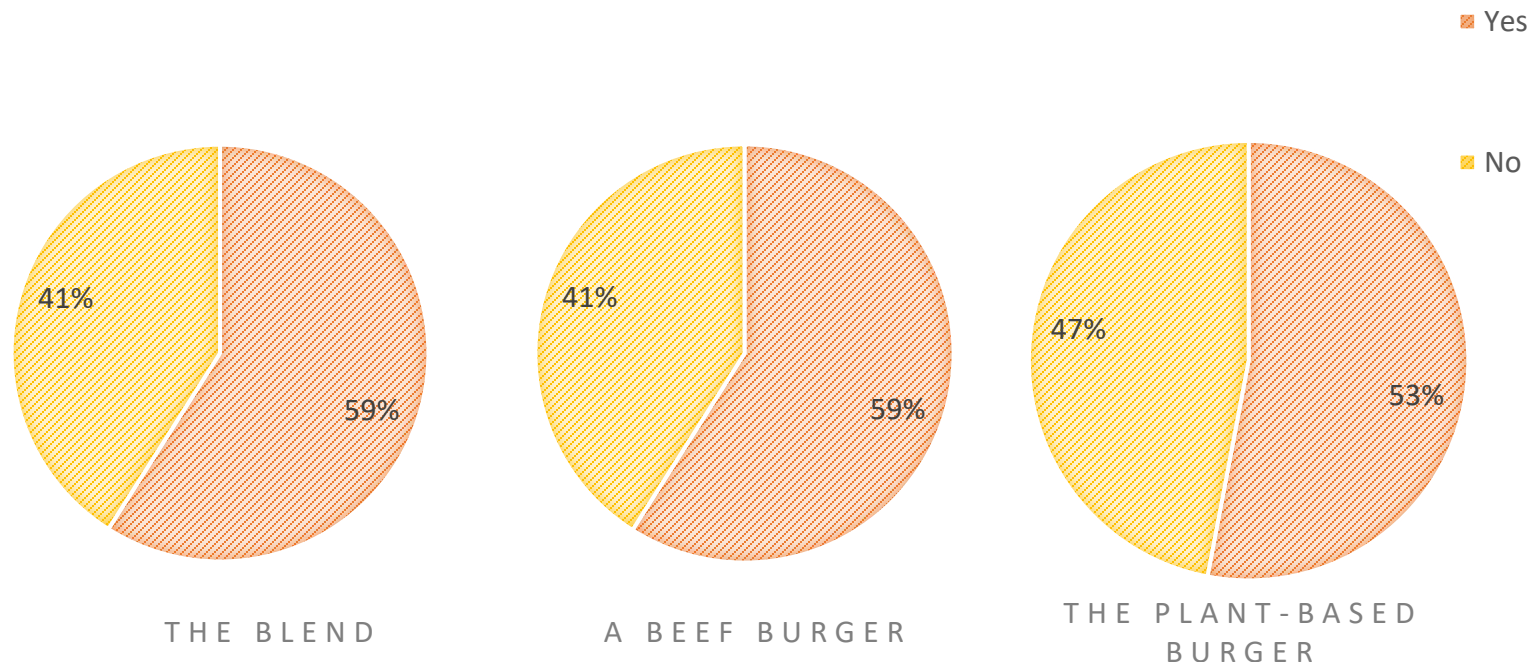
Differences in flavor preferences emerge: Those who dislike The Blend think it is boring, weird or bad; those who think it is alright, think it is mostly boring; and those who like it, like the flavor.

	What is it about the flavor of this burger specifically that makes you say you ...								
	B2B			Neutral			T2B		
	Blend n=4	Beef n=10	Plant-based n=28	Blend n=18	Beef n=22	Plant-based n=16	Blend n=78	Beef n=68	Plant-based n=56
Good Flavor	0%	0%	4%	17%	0%	13%	63%	51%	59%
Good Ingredients/Condiments	0%	0%	4%	0%	0%	6%	17%	16%	16%
Boring/Bland/Normal	25%	50%	14%	56%	64%	25%	14%	29%	7%
Not Normal/ Funky	50%	0%	21%	0%	0%	13%	0%	0%	0%
Too Much Bun/ Not Enough Meat	0%	0%	0%	17%	14%	6%	0%	0%	0%
Might Not Be Beef - Good	0%	0%	0%	0%	5%	0%	1%	0%	7%
Bad Flavor	25%	40%	50%	6%	9%	25%	1%	0%	0%
Bad Ingredients/Condiments	0%	10%	7%	6%	9%	13%	0%	0%	0%
Smoky Flavor/ BBQ	0%	0%	0%	0%	0%	0%	4%	3%	11%



The consumers who tasted The Blend or the beef burger first had a slightly better idea of which burger was which, and slightly over half of all consumers thought they could tell the difference.

YOU HAD 3 BURGERS, ONE WAS ALL BEEF, ONE WAS A PLANT BASED BURGER THAT LOOKS LIKE FRESH BEEF AND ONE WAS A BEEF AND MUSHROOM BLENDED BURGER. CAN YOU TELL WHICH ONE IS WHICH?

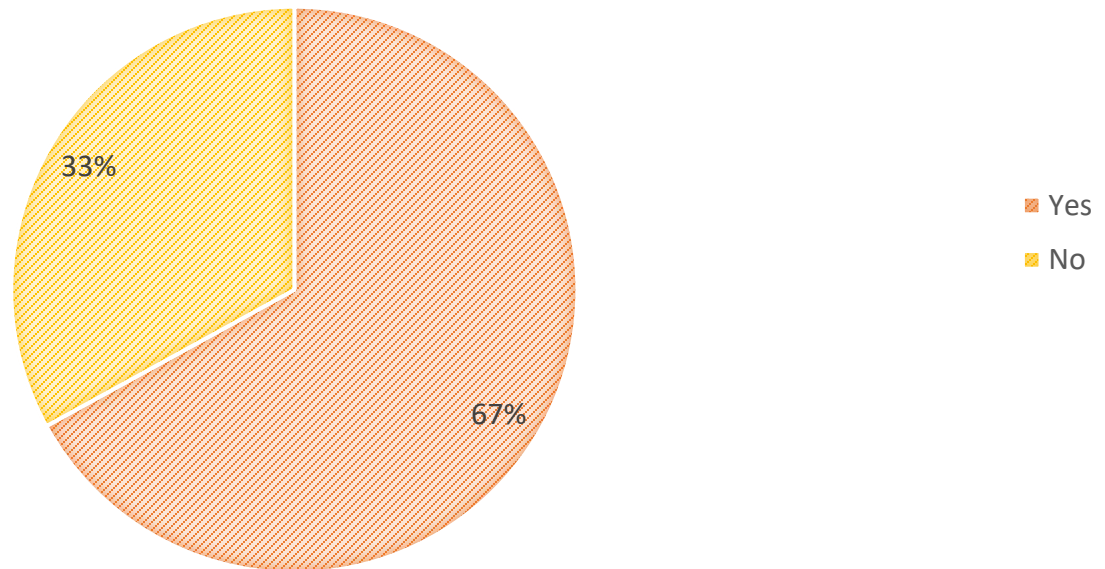


Among first-tasters of each burger.

Q16. You had 3 burgers, one was all beef, one was a plant based burger that looks like fresh beef and one was a beef and mushroom blended burger. Can you tell which one is which?

About two-thirds of consumers say that they would eat more burgers if the burgers had less beef.

WOULD YOU EAT BURGERS MORE OFTEN IF YOU KNEW THE BURGER YOU WERE GOING TO ORDER HAD 40% LESS BEEF?

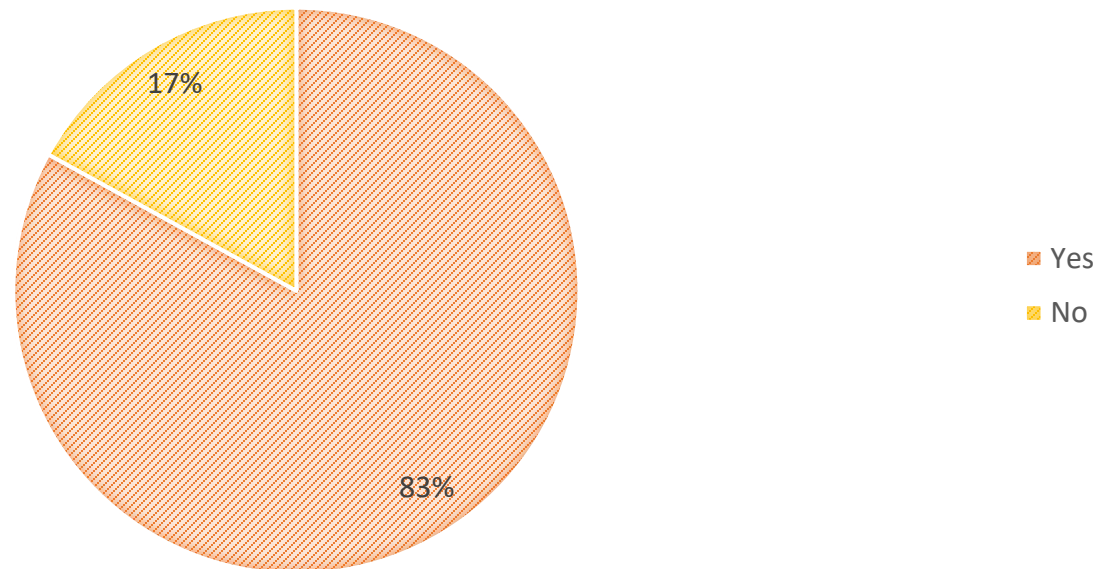


Among all first-tasters.

Q17. Would you eat burgers more often if you knew the burger you were going to order had 40% less beef?

Most consumers would eat burgers more often if the burger was healthier than a regular beef burger.

WOULD YOU EAT BURGERS MORE OFTEN IF YOU KNEW THE BURGER YOU WERE GOING TO ORDER HAD LES CALORIES, LESS FAT, LESS SODIUM AND LESS CHOLESTEROL THAN A REGULAR BURGER?

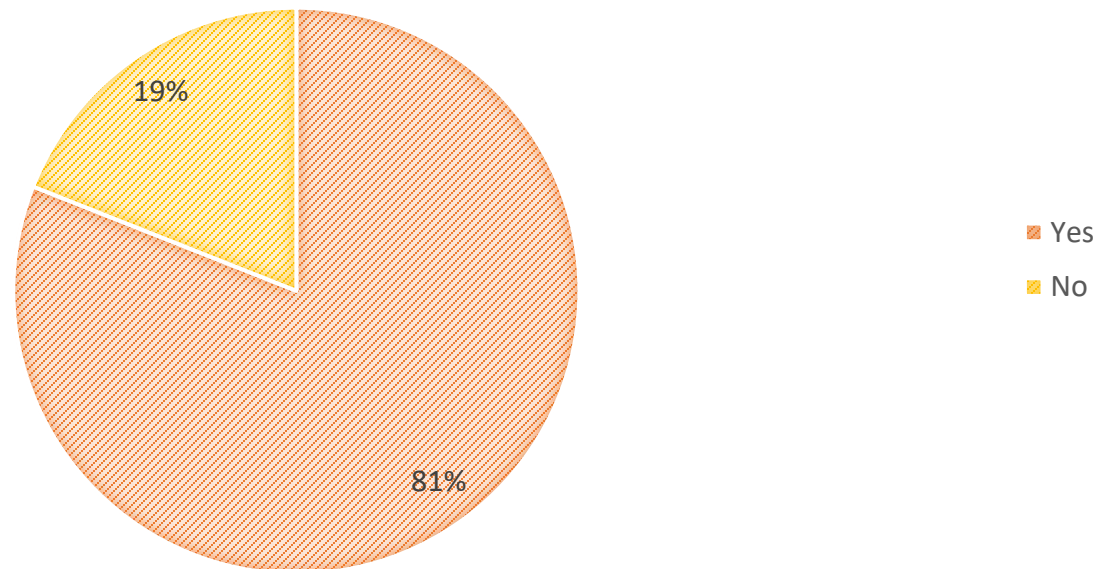


Among all first-tasters.

Q18. Would you eat burgers more often if you knew the burger you were going to order had less calories, less fat, less sodium and less cholesterol than a regular burger? 51

Most consumers would eat burgers more often if the burger was more sustainable than a regular beef burger.

WOULD YOU EAT BURGERS MORE OFTEN IF YOU KNEW THE
BURGER YOU WERE GOING TO ORDER WAS MORE
SUSTAINABLE?

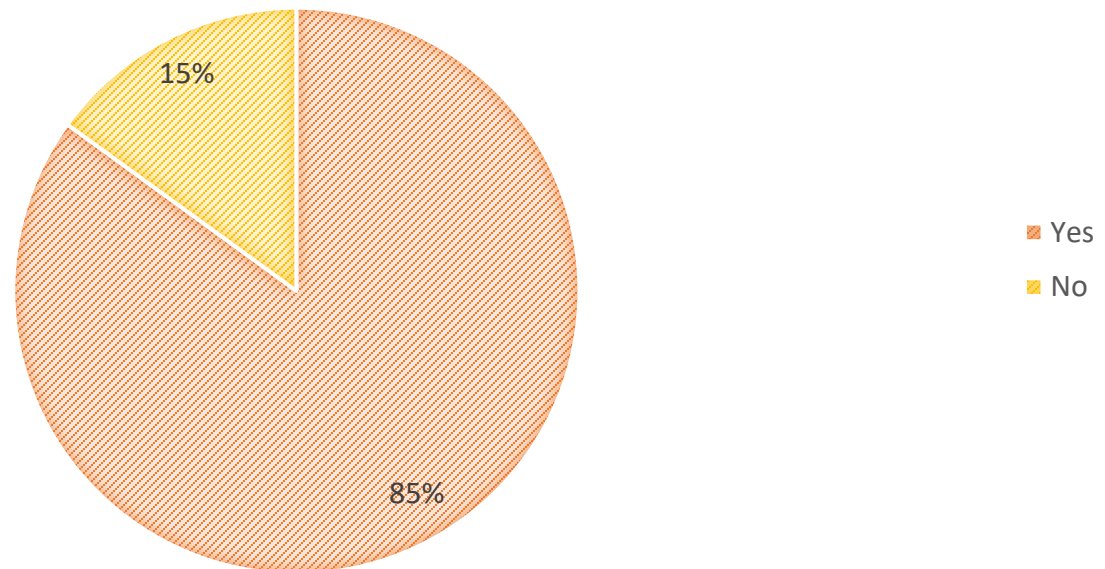


Among all first-tasters.

Q19. Would you eat burgers more often if you knew the burger you were going to order was more sustainable?

Most consumers would eat burgers more often if the burger had more vitamins and nutrients than a regular beef burger.

WOULD YOU EAT BURGERS MORE OFTEN IF YOU KNEW THE BURGER YOU WERE GOING TO ORDER HAD MORE NUTRIENTS LIKE VITAMIN B AND D IN IT?

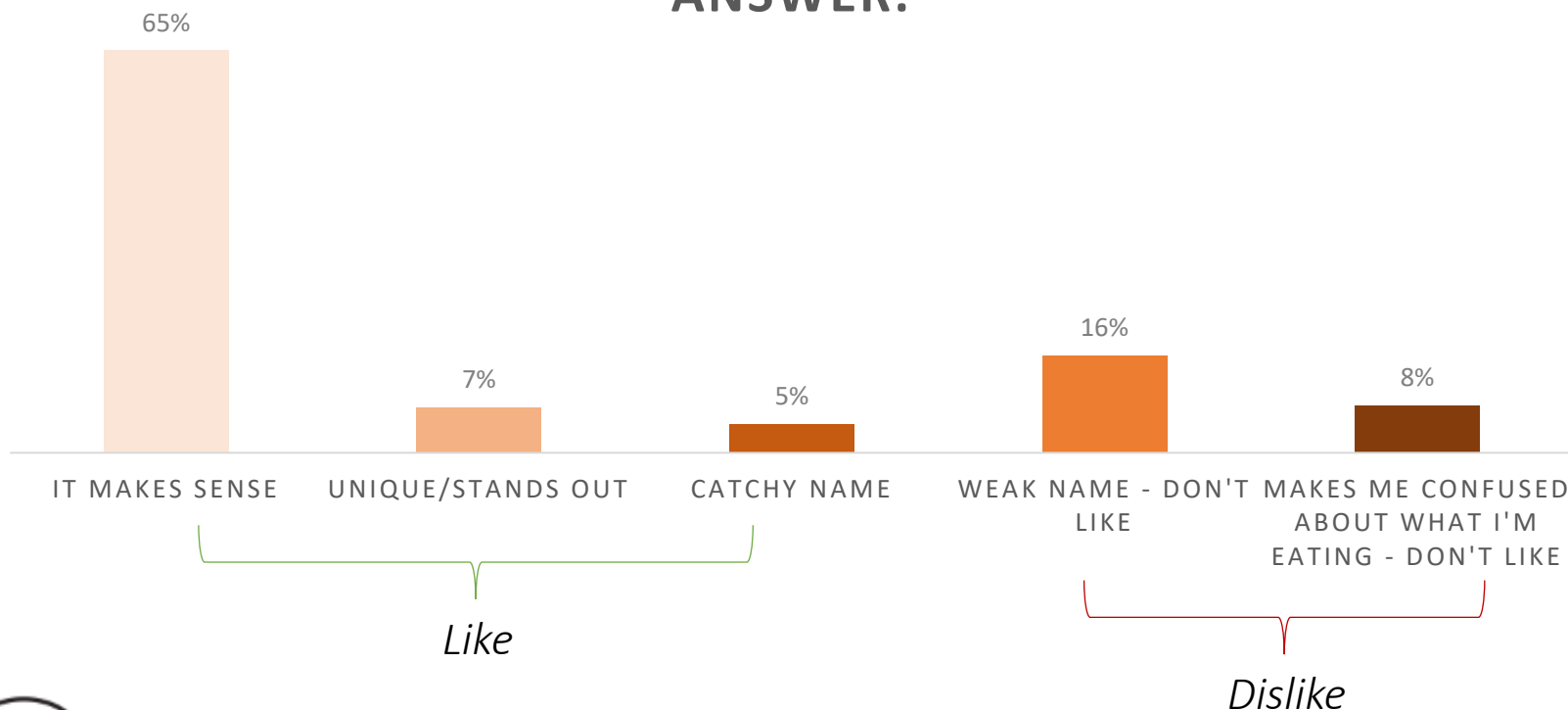


Among all first-tasters.

Q20. Would you eat burgers more often if you knew the burger you were going to order had more nutrients like vitamin B and D in it?

Most consumers felt like the name “The Blend” made sense and fit the burger. Of those consumers who didn’t like the name, they thought it was just OK, weak, or made them feel like it was blended with suspicious ingredients.

IN A FEW WORDS, PLEASE EXPLAIN YOUR ANSWER.



Among first-tasters of each burger.

Q27. In a few words, please explain your answer [from: Q26. How much do you agree or disagree that the name “the Blend” fits this burger?] [Open ends categorized]

Q11. Under what circumstances would you eat or serve this burger?

	Dinner			Lunch			A meal			A snack			Late night		
	The Blend	A Beef Burger	The plant-based burger	The Blend	A Beef Burger	The plant-based burger	The Blend	A Beef Burger	The plant-based burger	The Blend	A Beef Burger	The plant-based burger	The Blend	A Beef Burger	The plant-based burger
[1] Yes	26%	32%	28%	42%	42%	38%	24%	32%	30%	35%	34%	23%	42%	36%	36%
[2] No	74%	68%	72%	58%	58%	62%	76%	68%	70%	65%	66%	77%	58%	64%	64%

Serve to guests			Cookouts			Drive Thru			A healthy indulgence			None of the above		
The Blend	A Beef Burger	The plant-based burger	The Blend	A Beef Burger	The plant-based burger	The Blend	A Beef Burger	The plant-based burger	The Blend	A Beef Burger	The plant-based burger	The Blend	A Beef Burger	The plant-based burger
22%	26%	15%	44%	48%	39%	45%	52%	24%	9%	13%	17%	12%	11%	24%
78%	74%	85%	56%	52%	61%	55%	48%	76%	91%	87%	83%	88%	89%	76%



Filter: Try Count Equals 1; Unweighted; base n = 300; 67% filtered out
Multiple comparison correction: False Discovery Rate (FDR) (p = 0.05)

About one-half of consumers liked the taste of the first burger they tried, with a few more people liking The Blend burger over the other two kinds.

“I LOVE THE FLAVOR OF THE BURGER I JUST TASTED”



Among first-tasters of each burger.
Q7. I love the flavor of the burger I just tasted.

Thank you!