

Introducing Lieberman Research

Lieberman Research has decades of experience working with Food & Beverage companies. From manufacturers, retail and food service, Lieberman has a host of methodologies to help improve our clients standing in the marketplace.

At **Lieberman Research** we combine big company operations with boutique service giving us the flexibility to address your custom needs and deadlines, while consistently delivering the highest quality analytics.



Leadership Insight

We take a consultative approach, involving senior team members in every stage of the research process to provide ongoing consultation and marketing-focused deliverables.



Dedication to Customer Service

Our teams are designed with the best researchers for your business. Our approach is structured to provide flexibility to address your needs and deadlines, while consistently delivering the highest quality analytics. Not surprisingly, over 96% of our work is repeat business from existing clients!



Optimization Research Experts

We have conducted thousands of messaging and package optimization studies across a broad range of food and beverage categories. Lieberman is best practices for Optimization Research for several top food and beverage companies.



Innovative Research

Innovation is the heart and soul of Lieberman. We are constantly striving for ways to raise the bar with innovative market research techniques and business-oriented insights.

Lieberman has conducted quantitative and qualitative research for a variety of Food & Beverage clients:































































Background: Reason for Research

The Mushroom Council (the Council) is an industry organization composed of fresh mushroom producers and importers. Under authority of the US Department of Agriculture (USDA), the council conducts research and promotion programs designed to expand, maintain and develop markets for fresh mushroom consumption in the U.S. The Council's marketing objective is to increase per capita consumption and sales of fresh mushrooms by getting consumers to adopt mushrooms as a staple in their kitchen (buying more and more often).

Current marketing programs are organized around three campaigns tied to food trends and mushroom benefits: Nutrition, Flavor/taste, and Sustainability. The campaigns are executed through themes and messaging that are translated onto packaging, merchandising, and media. In an effort to increase the penetration and impact of the campaigns, **the Council** wants to refine their themes and messaging. **The Council** is requesting shopper research to determine which messages, statements, slogans and designs are the most impactful and understand why.



Research Objectives and Methodology

Key objectives of the research include:

- Evaluating key elements of the package/label to optimize on-pack elements
- Determining which messaging statements and campaign themes resonate strongly with shoppers
- Determining the best combination of two or more messaging statements
- Assessing attitudes towards key campaign themes and relate this to best performing statements and package/labels
- Understanding results by key subgroups

A 15-minute online survey was conducted in the USA among 700 consumers, qualified as:

- Primary or joint decision maker for their household's food and beverage purchases
- Purchase fresh whole or sliced mushrooms in a carton or till or likely to purchase in the future
- Aged 18 to 65 years; annual household income of \$25,000+

Survey Field Dates: February 7 – 13, 2023

- \rightarrow Quotas by gender (50%/50%), age group, and ethnicity were applied based on US census
- \rightarrow Generations were grouped as follows: Gen Z (18-26); Millennial (27-41); Gen X (42-57); Boomer (58-65)
- → Fresh mushroom purchase frequency (in a carton/till) was tracked to ensure a readable sample by user group

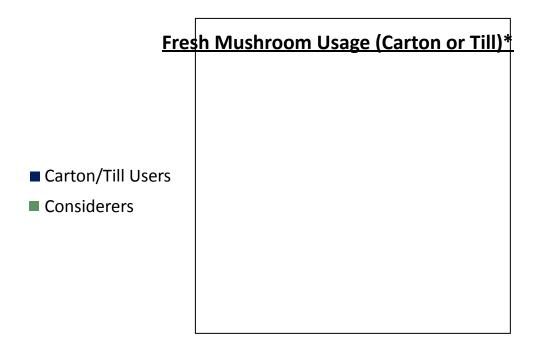
The survey included a **Shopping Exercise (Discrete Choice)** to evaluate and optimize package/label elements, a **Trade-Off Exercise** (**MAX-DIFF**) to determine optimal messaging, and supplemental questions to further assess attitudes and behaviors.



This webinar will focus on results from the Shopping Exercise and optimization of package/label elements.

Sample Profile

Sample included 548 Users of fresh mushrooms in a carton/till and 152 Considerers (Definitely/Probably would purchase in a carton/till).



Heavy Users (1+ times per week)

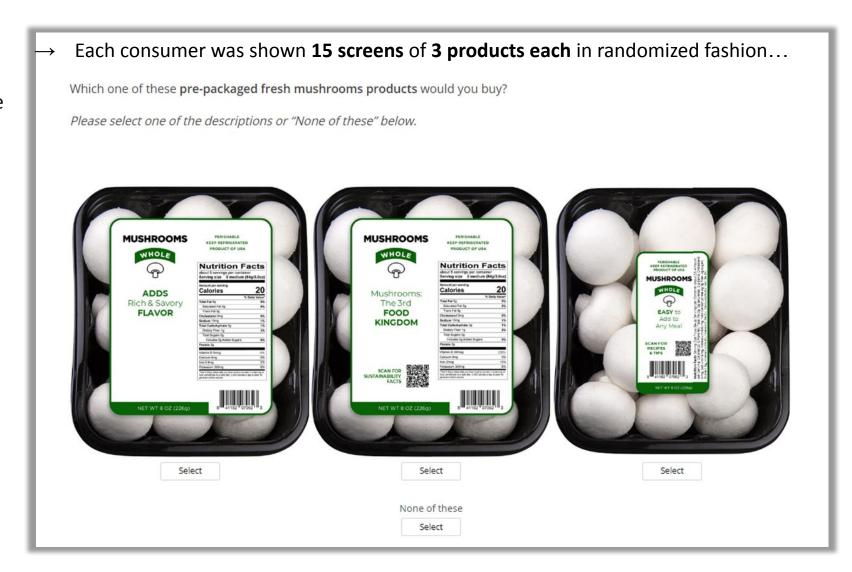
Medium Users (2-3 times per month)

Light Users (Once per month or less)



Methodology: Package Optimization (Discrete Choice Model)

- In the DCM exercise, consumers were asked to "shop" a series of products with different claims, label sizes, and presence or absence of nutritional panels and QR codes. Consumers could select "None of these" if they chose not to purchase any of the products.
- The DCM simulates relative importance for each individual claim, label, panel, and QR code scenario (element "levels").
- Purchase Interest scores are generated for combinations of levels.
- Relative importance indicates the best and worst levels within a package element ("+" or "-" in relation to average importance).





Package Elements Tested (Discrete Choice Model)

The simulated Shopping Exercise exposed consumers to the following package elements.







QR Code Text: Scan for Nutrition Facts Scan for Recipes & Tips Scan for Sustainability Facts

Package Claims

Make Meals MORE Delicious, Nutritious & Sustainable HEALTHY On the Plate, Gentle on the PLANET Low on Calories, Big on FLAVOR 100% DV Vitamin D 50% DV Vitamin D **GOOD Source of B Vitamins** 5 Medium Mushrooms = 1 Vegetable Serving 1 Acre = 1 MILLION LBS. Mushrooms Grown with SMART FARMING Practices Adds Rich & Savory FLAVOR ADD to Burgers, Pastas & Stir-Frys EASY to Sauté with Onion & Garlic EASY to Add to Any Meal Mushrooms + Meat = BIGGER Portions Picked FRESH DAILY Earth Friendly (logo) Feed Your Immune System (logo) Official Ingredient of EARTH MONTH Mushrooms: The 3rd FOOD KINGDOM

EXCELLENT Source of Antioxidants

Not shown when Nutrition Info absent



Key Findings: Package Optimization

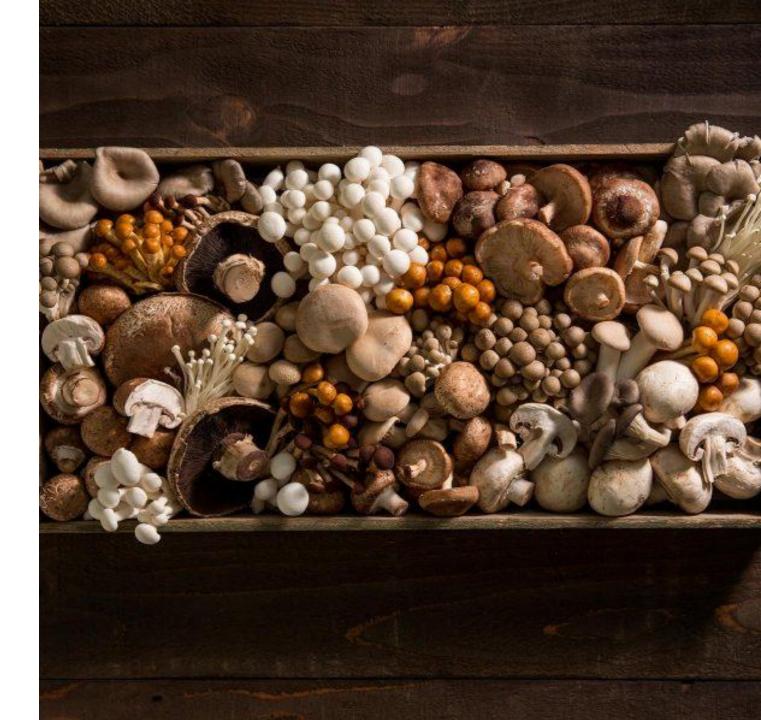
All 4 package elements tested are important and should be included on the label. The package claim and nutrition panel are
the biggest drivers of appeal, with label size and the QR code appealing on a secondary level.



- "Feed Your Immune System" performed the best among the package claims tested. Other highly appealing finalists for on-pack claims include "EXCELLENT Source of Antioxidants," "GOOD Source of B Vitamins," and "100% DV Vitamin D."
- Including nutritional information on the package is highly motivating to consumers and could be a reason why the larger label was more appealing to consumers, as it has space for a full nutrition panel.
 - Durchase interest drops when moving from a large label to a small label design. The degree of falloff varies by segment but is more pronounced among the youngest consumers (Gen Z).
- While less important to consumers, research suggests including a QR Code for more information can increase package appeal. "Scan for Recipes & Tips" scores slightly higher than "Scan for Sustainability Facts" and "Scan for Nutritional Facts".
- Among the highest-scoring package designs, results are generally consistent by user group and generational group in terms of ranking indicating little risk in alienating a segment with a certain claim or other package element.
- The importance of nutrition and immune system health in package claims is strongly recommended in communicating with fresh mushroom consumers and considerers.



Importance of Package Elements

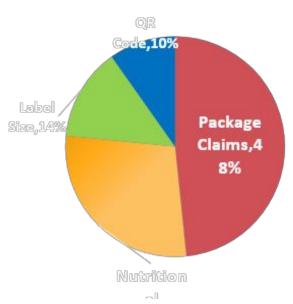




Relative Importance of Package Elements

- Claims on the package are the most important component tested, by a wide margin. This is the case across user groups and generations, where the hierarchy of important package elements is the same.
- The QR Code is least important, relative to other package elements, but still recommended for inclusion.

Total Consumers



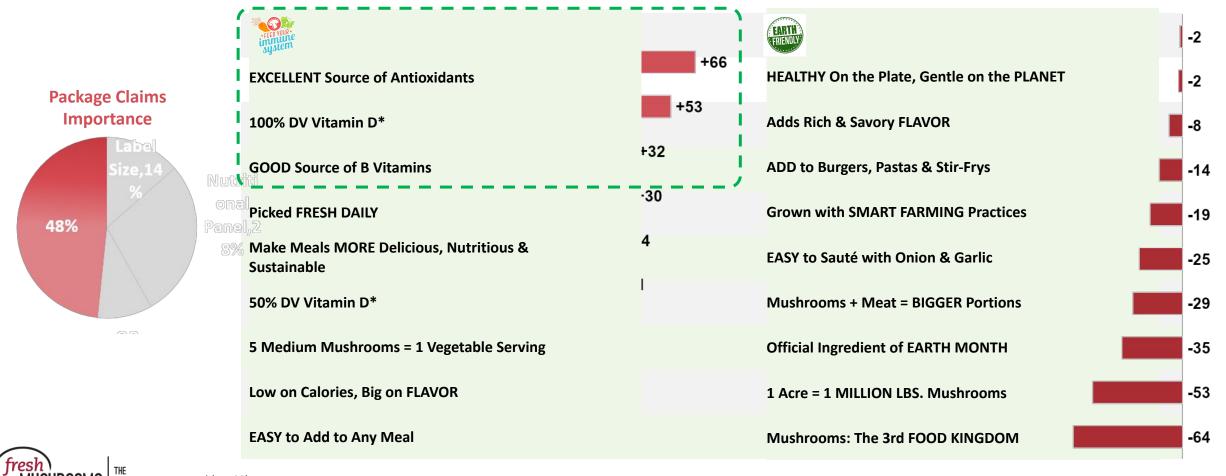
	Heavy Users	Medium Users	Light Users	Considerers	Gen Z	Millennials	Gen X	Boomers
Package Claims	46%	50%	53%	46%	44%	47%	50%	50%
Nutritional Panel	30%	27%	27%	29%	30%	29%	28%	27%
Label Size	14%	14%	11%	14%	15%	14%	12%	14%
QR Code	10%	9%	9%	11%	11%	10%	10%	9%



Relative Importance of Package Claims

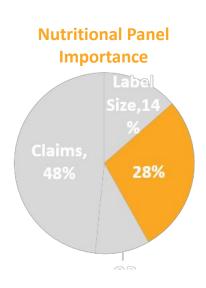
- The "FEED YOUR immune system" logo is the most appealing package claim by a fair margin and reinforces findings from the separate message-testing results.
- Claims related to immune system health and vitamin content make up the top 4 package claims.

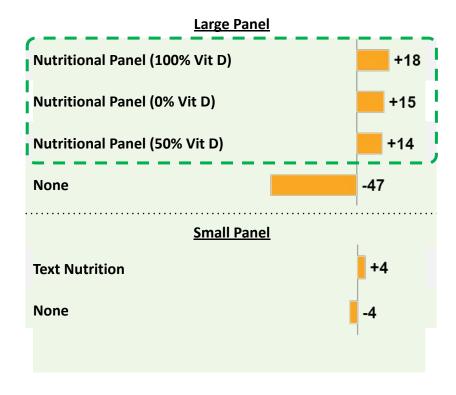
*Not shown when Nutritional Panel absent.

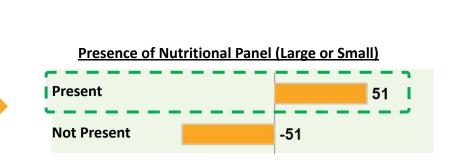


Relative Importance of Nutritional Panel

- Regardless of label size, including nutritional information on the label is more appealing to consumers, especially for the large package where a full nutritional panel can be shown.
- There were minimal differences in appeal for different levels of Vitamin D included in the nutrition panel for the large label.





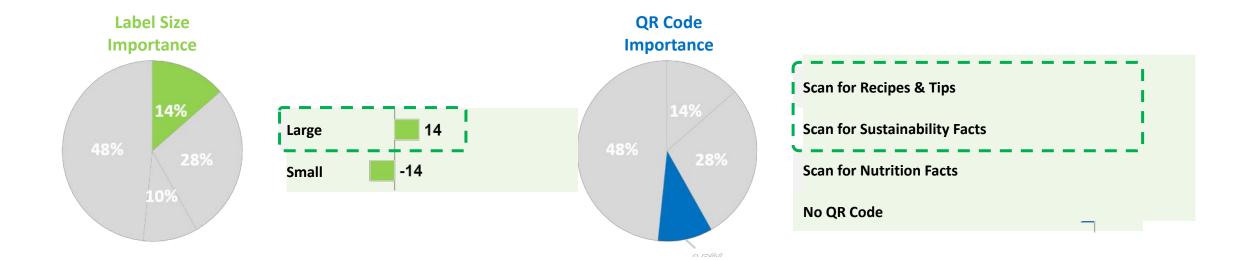






Relative Importance of Label Size & QR Code

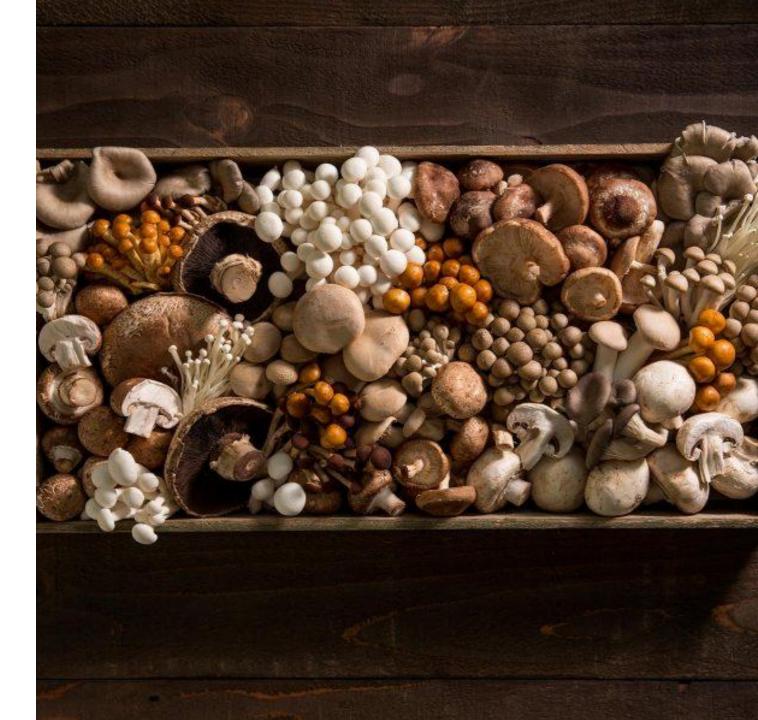
- Though less important, the large package label was found to be more appealing to consumers over the small label.
- There is minimal impact from the inclusion of a QR Code. However, "Scan for Recipes & Tips" and "Scan for Sustainability Facts" were considered the most appealing by consumers.







Recommended Package Designs





Highest-Scoring Combinations

• The highest-scoring designs are all large labels with the "FEED YOUR immune system" logo. The QR Code is present (with alternative text) along with the nutritional panel, with either "100%" or "0%" Vitamin D callouts.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample
Large		SCAN FOR RECIPES & TIPS	100% Vitamin D	50.90% (1)
MUSHROOMS PRESSARE SERVE REPRODUCT OF ILE PRODUCT OF ILE	+FEED YOUR+	SCAN FOR SUSTAINABILITY FACTS	100% Vitamin D	50.90% (1)
NET VIT 8 DZ (224g)	system	SCAN FOR TO SUSTAINABILITY FACTS	0% Vitamin D	50.10 % (3)
		SCAN FOR RECIPES & TIPS	0% Vitamin D	50% (4)
			Base:	(700)
		L	owest-Scoring Combination:	28.4%



Alternative Claim Combinations

- Below are the next best performing claims that could be used on pack in place of "Feed Your Immune System". All packages with these claims are among the top 10% performing claims.
- "EXCELLENT Source of Antioxidants" has the highest appeal as an alternative claim.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample
Large	EXCELLENT Source of Antioxidants	SCAN FOR RECIPES & TIPS	100% Vitamin D	49.60%
MUSHROOMS TERROARA	EXCELLENT Source of Antioxidants	SCAN FOR SUSTAINABILITY FACTS	100% Vitamin D	(14)
MUSHROOMS EEE MINICALATO PRODUCT OF IELA	GOOD Source of B Vitamins	SCAN FOR THE SCAN FOR FOR THE SCAN FOR THE S	100% Vitamin D	48.70%
NET WT 9 OZ (225sp)	GOOD Source of B Vitamins	SCAN FOR SUSTAINABILITY FACTS	100% Vitamin D	47.40 %
	100% DV Vitamin D	SCAN FOR SUSTAINABILITY FACTS	100% Vitamin D	(26)
	100% DV Vitamin D	SCAN FOR TO SECIPES & TIPS	100% Vitamin D	46.90%
			Base:	(700)
		L	Lowest-Scoring Combination:	28.4%



Small Label Combinations

• Among small label combinations, the highest-scoring designs all have the "FEED YOUR immune system" logo. QR codes for Sustainability Facts or Nutrition Facts are slightly more appealing than Recipes and Tips.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample
Small		SCAN FOR SUSTAINABILITY FACTS	Text Nutrition	46.60% (28)
MUSHROOMS TOTAL TOTAL	+FEED YOUR+ immune	SCAN FOR NUTRITION FACTS	Text Nutrition	46.40% (31)
	system	SCAN FOR TOTAL RECIPES & TIPS	Text Nutrition	46.10% (34)
			Base:	(700)
		L	owest-Scoring Combination:	28.4%



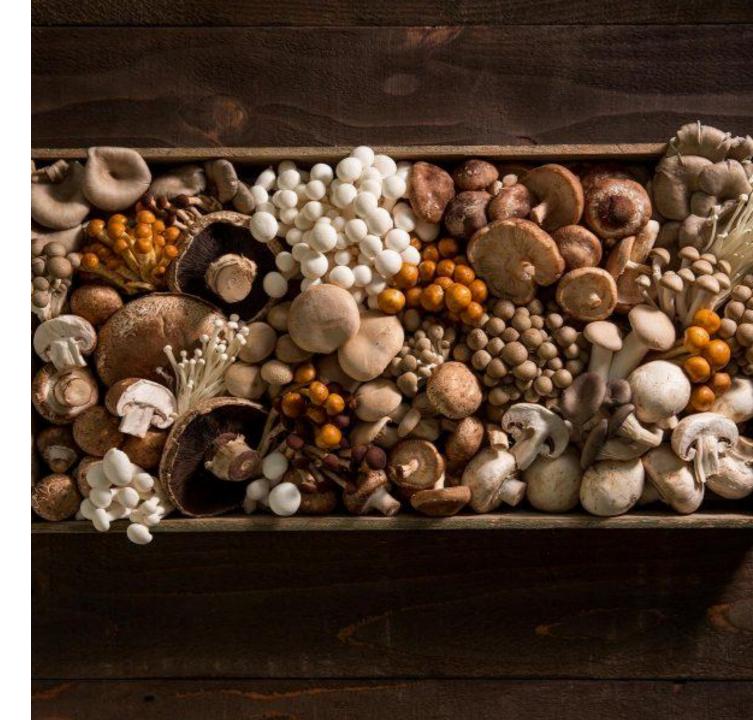
Small Label Alternative Claims

- For the small-label designs, the three best alternative claims are consistent with the large label results.
- "EXCELLENT Source of Antioxidants" is ranked consistently higher than other options, with either the "scan for sustainability facts" or "scan for recipes & tips" QR Code text.
- These small label combinations perform significantly lower than large label combinations.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample
Small	EXCELLENT Source of Antioxidants	SCAN FOR RECIPES & TIPS	Text Nutrition	44.10 (46) %
Parada, parada p	EXCELLENT Source of Antioxidants	SCAN FOR SUSTAINABILITY FACTS	Text Nutrition	(46)
MUSHROOMS TOTAL TOTAL	GOOD Source of B Vitamins	SCAN FOR TAKE SECIPES & TIPS	Text Nutrition	44.10 % (117)
- A ST IN COLOR	GOOD Source of B Vitamins	SCAN FOR THE SUSTAINABILITY FACTS	Text Nutrition	41.70 (129)
	100% DV Vitamin D	SCAN FOR TOTAL PROPERTY OF THE PROPERTY OF T	Text Nutrition	(124)
	100% DV Vitamin D	SCAN FOR TOTAL SUSTAINABILITY FACTS	Text Nutrition	41.40 % (138)
			Base:	(700)
		L	owest-Scoring Combination:	28.4%



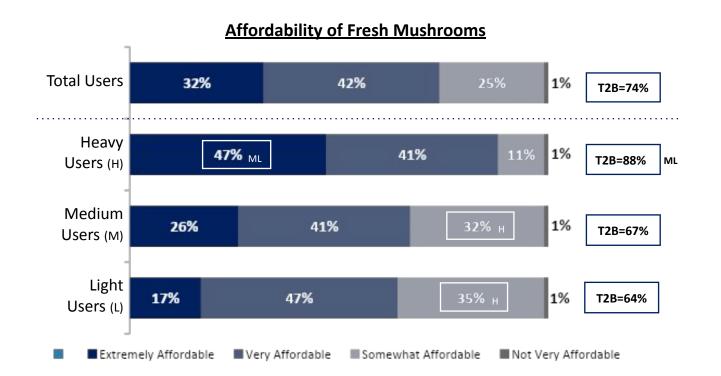
Supporting Detail



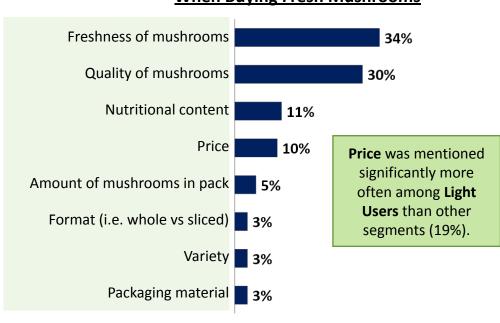


Affordability and Benefits of Fresh Mushrooms

- There is a notable difference in affordability perceptions by user group, with almost half of Heavy Users indicating that fresh mushrooms are "extremely affordable." This compares to only 17% among Light Users. However, a good majority of all consumers find them at least "very affordable."
- In terms of stated importance, the freshness and quality of mushrooms are seen as the most important attributes when buying fresh mushrooms.



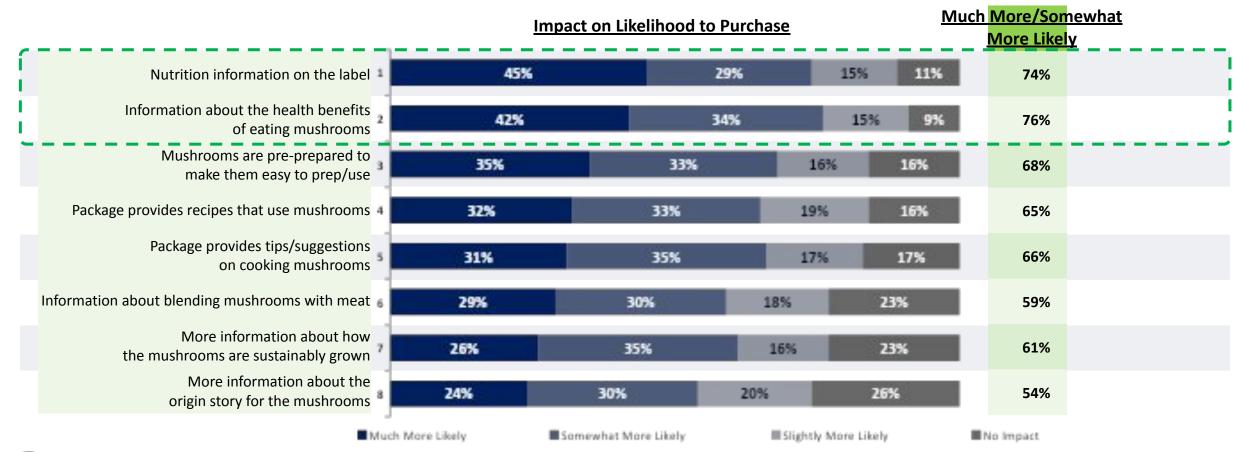






Packaging Attributes: Impact on Purchase Intent

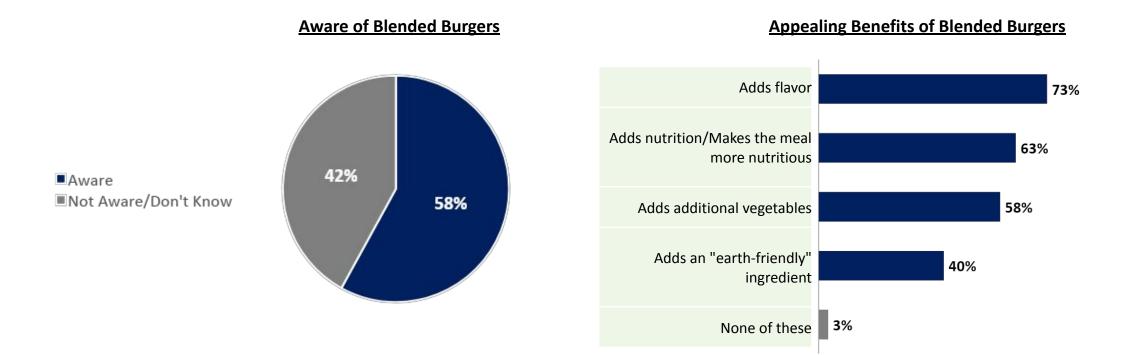
- "Nutrition information" and "Information about Health Benefits" are the most likely packaging attributes to impact purchasing of pre-packaged fresh mushrooms, consistent with the top performing claims/inputs seen in the packaging test.
- "Sustainably grown" and the "origin story" are less impactful, but likely appeal to a niche group of consumers.





Blended Burger Awareness and Appealing Benefits

- Nearly six-in-ten consumers are aware of blended burgers.
- "Adds flavor" is the top-rated benefit of blended burgers, followed by "adds nutrition" and "adds additional vegetables."





THANK YOU!

For Questions or Comments, please reach out to the Mushroom Council (Lindsey@mushroomcouncil.org)





Appendix





Highest-Scoring Combinations—Within User Groups

- The highest-scoring designs are all large labels with the "FEED YOUR immune system" logo. The QR Code is present (with alternative text) along with the nutritional panel, with either "100%" or "0%" Vitamin D callouts.
- Heavy Users (once per week+) have the highest purchase interest by a notable margin over Medium and Light Users, as well as Considerers.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample	Heavy Users	Medium Users	Light Users	Considerers
Large		SCAN FOR 及保 RECIPES & TIPS (图)	100% Vitamin D	50.9% (1)	63.8% (1)	46.1% (3)	40.7% (4)	48.7% (7)
MUSHROOMS THE PROPERTY OF THE	STORY VOILE	SCAN FOR THE SUSTAINABILITY FACTS	100% Vitamin D	50.9% (1)	62.8% (2)	46.5% (1)	41.7% ⁽²⁾	48.7% (7)
	immune ayatem	SCAN FOR DIFFERENCE SUSTAINABILITY FACTS	0% Vitamin D	50.1% (3)	61.8% (4)	46.1% (3)	41.7% (2)	47.4% (19)
		SCAN FOR 及 SCAN FOR 及 RECIPES & TIPS 通名 国际	0% Vitamin D	50.0% (4)	60.8% (8)	45.6% (5)	39.8% (7)	50.0% (1)
			Base:	(700)	(199)	(241)	(108)	(152)
		Lowest-Scoring Combination:			39.7%	22.4%	23.1%	25.0%



Showing Top Box Purchase Interest (Definitely Would Buy) (#) = Combination rank within segment (464 total combinations)

Highest-Scoring Combinations—Within Generations

- The top designs rank in or near the top 10 across all generations, suggesting these package combinations are widely appealing.
- For Boomers, "Feed Your Immune System" is much more appealing when paired with the 100% Vitamin D nutritional label.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample	Gen Z	Millennials	Gen X	Boomers
Large	Large Indicate	SCAN FOR 及4年 RECIPES & TIPS 漫文子	100% Vitamin D	50.9% (1)	39.0% (4)	46.5% (4)	62.0% (1)	48.6% (6)
MUSHICOMS		SCAN FOR TALES SUSTAINABILITY ASSESSMENT FACTS	100% Vitamin D	50.9% (1)	37.8% (11)	47.3% (1)	61.6% (2)	48.6% (6)
		SCAN FOR TO SUSTAINABILITY FACTS	0% Vitamin D	50.1% (3)	39.0% (4)	46.9% (2)	60.2% (8)	47.3% (18)
		SCAN FOR TAKE TO SEE THE SECOND SECON	0% Vitamin D	50.0% (4)	40.2% (1)	46.1% (5)	61.1% (3)	45.9% (24)
			Base:	(700)	(82)	(256)	(216)	(146)
		Lowest-Sco	ring Combination:	28.4%	24.4%	28.5%	34.7%	19.9%



Showing Top Box Purchase Interest (Definitely Would Buy) (#) = Combination rank within segment (464 total combinations)

Alternative Claim Combinations—Within User Groups

- Below are the next best performing claims that could be used on pack in place of "Feed Your Immune System". All packages with these claims are among the top 10% performing claims for all user groups.
- "EXCELLENT Source of Antioxidants" has the highest appeal as an alternative claim.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample	Heavy Users	Medium Users	Light Users	Considerers
Large	EXCELLENT Source of Antioxidants	SCAN FOR TAKE RECIPES & TIPS	100% Vitamin D	49.6% (8)	60.3% (10)	46.5% (1)	38.0% (19)	48.7% (7)
	EXCELLENT Source of Antioxidants	SCAN FOR THE S SUSTAINABILITY FACTS	100% Vitamin D	48.7% (14)	59.3% (17)	44.4% (15)	38.9% (13)	48.7% (7)
MUSIRDOMS amanana	GOOD Source of B Vitamins	SCAN FOR TAKE TO SEE THE SECOND SECON	100% Vitamin D	47.4% (24)	57.3% (32)	44.8% (13)	36.1% <i>(37)</i>	46.7% (24)
	GOOD Source of B Vitamins	SCAN FOR SUSTAINABILITY FACTS	100% Vitamin D	46.9% ⁽²⁷⁾	57.8% (23)	42.7% ⁽²⁸⁾	37.0% (26)	46.1% ⁽²⁸⁾
	100% DV Vitamin D	SCAN FOR SUSTAINABILITY FACTS	100% Vitamin D	47.0% (26)	57.8% (23)	43.6% (25)	36.1% (37)	46.1% (28)
	100% DV Vitamin D	SCAN FOR TAX RECIPES & TIPS 1945	100% Vitamin D	46.6% (28)	55.8% (49)	44.0% (20)	36.1% <i>(37)</i>	46.1% (28)
			Base:	(700)	(199)	(241)	(108)	(152)
		Lowest-Scor	ring Combination:	28.4%	39.7%	22.4%	23.1%	25.0%



Alternative Claim Combinations—Within Generations

• "EXCELLENT Source of Antioxidants", "GOOD Source of B Vitamins" and "100% DV Vitamin D" all perform strongly for each generation, with nearly all combinations landing in the top 10% of all combinations tested.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample	Gen Z	Millennials	Gen X	Boomers
Large	EXCELLENT Source of Antioxidants	SCAN FOR DAY RECIPES & TIPS	100% Vitamin D	49.6% (8)	37.8% (11)	43.8% (20)	60.2% ⁽⁸⁾	50.7% (2)
	EXCELLENT Source of Antioxidants	SCAN FOR THE SUSTAINABILITY FACTS	100% Vitamin D	48.7% (14)	36.6% (24)	44.1% (15)	57.4% (21)	50.7% (2)
MURROCOMS TERM TO THE TERM TO	GOOD Source of B Vitamins	SCAN FOR 深格 RECIPES & TIPS 语文	100% Vitamin D	47.4% (24)	39.0% (4)	41.0% (42)	58.3% (15)	47.3% (18)
Metalogue	GOOD Source of B Vitamins	SCAN FOR SUSTAINABILITY FACTS	100% Vitamin D	46.9% ⁽²⁷⁾	37.8% (11)	40.6% ⁽⁵⁴⁾	56.9% ⁽²⁵⁾	48.0% (10)
	100% DV Vitamin D	SCAN FOR SUSTAINABILITY FACTS	100% Vitamin D	47.0% (26)	36.6% (24)	41.4% (33)	56.5% (33)	48.6% (6)
	100% DV Vitamin D	SCAN FOR 现存。 RECIPES & TIPS 便好。	100% Vitamin D	46.6% (28)	35.4% (42)	41.4% (33)	56.0% (37)	48.0% (10)
			Base:	(700)	(82)	(256)	(216)	(146)
		Lowest-Scor	ring Combination:	28.4%	24.4%	28.5%	34.7%	19.9%



Highest-Scoring Combinations Among Considerers

- The highest-scoring package combinations that appeal most to Fresh Mushroom Considerers include the large label, with either the "FEED YOUR immune system" logo or "EXCELLENT Source of Antioxidants" as the on-pack claim.
- Presence of Vitamin D is not as important to considerers, though QR Codes for Recipes & Tips or Nutrition Facts are most appealing to this group.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample	Heavy Users	Medium Users	Light Users	Considerers
Large	NO CONTRACTOR OF THE PARTY OF T	SCAN FOR 及為 RECIPES & TIPS 图象表 即成為	0% Vitamin D	50.0% (4)	60.8% (8)	45.6% (5)	39.8% (7)	50.0% (1)
MUSHROOMS TRANSPORT	immune system	SCAN FOR DIFFERENCE SCAN FOR SCAN FOR SCAN FOR SCAN FACTS SCAN FOR	0% Vitamin D	49.4% (9)	61.8% (4)	44.0% (20)	38.9% (13)	49.3% (2)
THE PARTY OF THE P	EXCELLENT	SCAN FOR RECIPES & TIPS	0% Vitamin D	49.3% (11)	59.8% (12)	45.6% (5)	38.0% (19)	49.3% (2)
	Source of Antioxidants	SCAN FOR 回前美国 NUTRITION PARTY FACTS 国际	0% Vitamin D	48.1% (18)	57.8% (23)	44.0% (20)	38.0% (19)	49.3% (2)
			Base:	(700)	(199)	(241)	(108)	(152)
		Lowest-Scoring Combination:		28.4%	39.7%	22.4%	23.1%	25.0%



Small Label Combinations—Within User Groups

- Among small label combinations, the highest-scoring designs all have the "FEED YOUR immune system" logo. QR codes for Sustainability Facts or Nutrition Facts are slightly more appealing than Recipes and Tips.
- As with the large label, Heavy Users (once per week+) have the highest purchase interest by a notable margin over Medium and Light Users, as well as considerers Considerers.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample	Heavy Users	Medium Users	Light Users	Considerers
Small	Small	SCAN FOR TIME SUSTAINABILITY FACTS	Text Nutrition	46.6% (28)	59.8% (12)	41.5% (34)	38.0% (19)	43.4% (48)
Massons ©	+FEET YOUR + immune aystem	SCAN FOR NUTRITION FACTS	Text Nutrition	46.4% (31)	59.8% (12)	41.9% (32)	37.0% ⁽²⁶⁾	42.8% (55)
, mount	Муне	SCAN FOR RECIPES & TIPS	Text Nutrition	46.1% (34)	59.8% (12)	41.1% (39)	37.0% (26)	42.8% (55)
			Base:	(700)	(199)	(241)	(108)	(152)
	Lowest-Scoring Combination:			28.4%	39.7%	22.4%	23.1%	25.0%

Showing Top Box Purchase Interest (Definitely Would Buy)
(#) = Combination rank within segment (464 total combinations)



Small Label Combinations—Within Generations

- Small labels with the highest performing claim "Feed Your Immune System" performs best among Millennials and Gen X.
- Gen Z have significantly lower scores for package combinations using the small label when compared to the large labels.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample	Gen Z	Millennials	Gen X	Boomers
Small	*FEED YOUR * immune system	SCAN FOR SUSTAINABILITY FACTS	Text Nutrition	46.6% (28)	31.7% (144)	44.9% (13)	56.9% (25)	42.5% (43)
		SCAN FOR PROPERTY OF THE PROPE	Text Nutrition	46.4% (31)	31.7% (144)	43.8% (20)	57.4% (21)	43.2% (38)
		SCAN FOR RECIPES & TIPS	Text Nutrition	46.1% (34)	34.2% (71)	44.1% (15)	56.5% (33)	41.1% (55)
			Base:	(700)	(82)	(256)	(216)	(146)
	Lowest-Scoring C		ring Combination:	28.4%	24.4%	28.5%	34.7%	19.9%

Showing Top Box Purchase Interest (Definitely Would Buy)
(#) = Combination rank within segment (464 total combinations)



Small Label Alternative Claims—Within User Groups

- For the small-label designs, the three best alternative claims are consistent with the large label results.
- "EXCELLENT Source of Antioxidants" is ranked consistently higher than other options, with either the "scan for sustainability facts" or "scan for recipes & tips" QR Code text.
- These small label combinations perform significantly lower than large label combinations for Considerers.

Label Size	Claim	QR Code	Nutritional Panel	Total Sample	Heavy Users	Medium Users	Light Users	Considerers
Small	EXCELLENT Source of Antioxidants	SCAN FOR RECIPES & TIPS	Text Nutrition	44.1% (46)	56.8% (42)	41.5% (34)	34.3% (71)	38.8% (136)
	EXCELLENT Source of Antioxidants	SCAN FOR THE S SUSTAINABILITY FACTS	Text Nutrition	44.1% (46)	56.8% (42)	40.3% (49)	35.2% (45)	40.1% (100)
Name on the second	GOOD Source of B Vitamins	SCAN FOR 现存。 RECIPES & TIPS 資本	Text Nutrition	41.7% (117)	55.3% (61)	37.8% (102)	31.5% (159)	37.5% (171)
JIHIH.	GOOD Source of B Vitamins	SCAN FOR SUSTAINABILITY FACTS	Text Nutrition	41.4% (¹²⁹⁾	54.8% ⁽⁷¹⁾	38.6% ⁽⁷⁹⁾	30.6% (195)	36.2% ⁽²⁰⁸⁾
	100% DV Vitamin D	SCAN FOR THE SCAN FOR FOR THE SCAN FOR THE S	Text Nutrition	41.6% (124)	54.3% (85)	37.3% (120)	32.4% (133)	38.2% (155)
	100% DV Vitamin D	SCAN FOR SUSTAINABILITY FACTS	Text Nutrition	41.3% (138)	54.8% (71)	36.5% (144)	31.5% (159)	38.2% (155)
			Base:	(700)	(199)	(241)	(108)	(152)
	Lowest-Scoring Combination:		28.4%	39.7%	22.4%	23.1%	25.0%	



Small Label Alternative Claims—Within Generations

- Among the top small-label alternative claims, Gen X has the highest purchase intent while Gen Z has the lowest.
- "EXCELLENT Source of Antioxidants" is generally the best alternative claim to the "FEED YOUR immune system" logo, though "Good Source of B Vitamins" paired with "Scan for Recipe & Tips" scores somewhat higher for Gen Z.

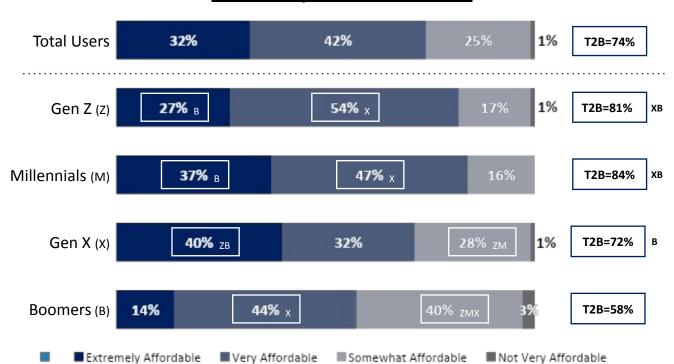
Label Size	Claim	QR Code	Nutritional Panel	Total Sample	Gen Z	Millennials	Gen X	Boomers
Small	EXCELLENT Source of Antioxidants	SCAN FOR RECIPES & TIPS	Text Nutrition	44.1% (46)	30.5% (201)	40.6% (54)	54.6% (46)	42.5% (43)
	EXCELLENT Source of Antioxidants	SCAN FOR THE S SUSTAINABILITY FACTS	Text Nutrition	44.1% (46)	30.5% (201)	41.4% (33)	53.2% (57)	43.2% (38)
REAL OCCUPANT	GOOD Source of B Vitamins	SCAN FOR 基本 RECIPES & TIPS 接入 可以表	Text Nutrition	41.7% (117)	32.9% (102)	36.3% (211)	53.2% (57)	39.0% (89)
JUNIU.	GOOD Source of B Vitamins	SCAN FOR SUSTAINABILITY FACTS	Text Nutrition	41.4% (129)	30.5% ⁽²⁰¹⁾	35.6% ⁽²⁴⁵⁾	52.8% (69)	41.1% ⁽⁵⁵⁾
	100% DV Vitamin D	SCAN FOR THE STATE OF THE STATE	Text Nutrition	41.6% (124)	29.3% (252)	38.3% (145)	50.9% (116)	40.4% (61)
	100% DV Vitamin D	SCAN FOR SUSTAINABILITY FACTS	Text Nutrition	41.3% (138)	28.1% (310)	37.5% (179)	50.5% (129)	41.8% (47)
			Base:	(700)	(82)	(256)	(216)	(146)
	Lowest-Scorin		ring Combination:	28.4%	24.4%	28.5%	34.7%	19.9%



Affordability and Benefits—Generations

- Across generations, Gen Z and Millennials are most likely to find fresh mushrooms extremely/very affordable, while Boomers are the least likely to
 do so.
- While the freshness and quality of mushrooms are deemed important regardless of generation, Gen Z and Millennials are significantly more likely to be swayed by nutritional content, highlighting an opportunity to promote the nutritional benefits.

Affordability of Fresh Mushrooms



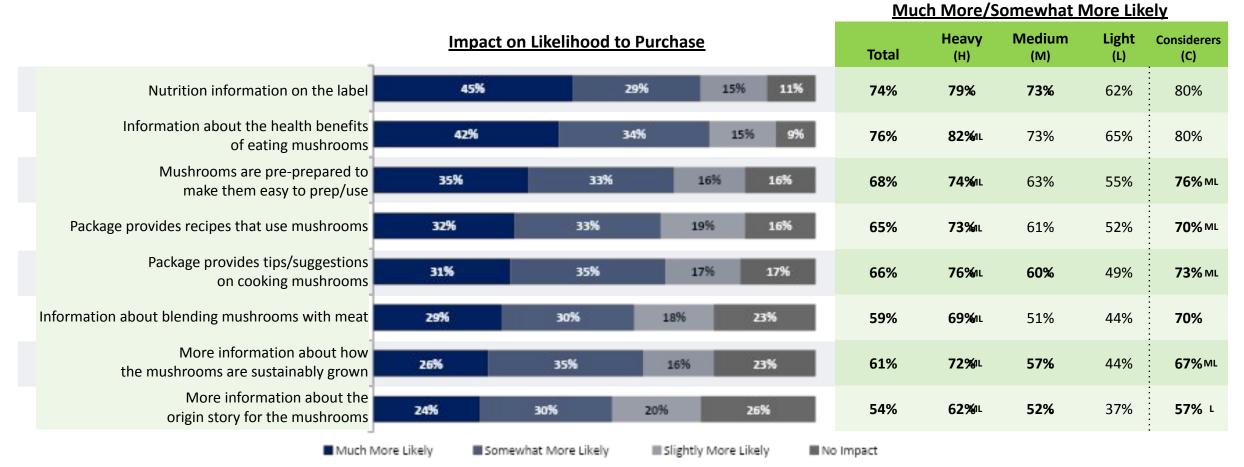
Most Important Attribute When Buying Fresh Mushrooms

	Total	Gen Z (Z)	Millennials (M)	Gen X (X)	Boomers (B)
Freshness of mushrooms	34%	26%	31%	35%	43%
Quality of mushrooms	30%	33%	27%	31%	31%
Nutritional content	11%	17% хв	16% XB	8%	4%
Price	10%	9%	9%	13%	9%
Amount of mushrooms in pack	5%	¦ ¦ 7%	5%	6%	4%
Format (i.e. whole vs sliced)	3%	3%	4%	2%	3%
Variety	3%	6%	2%	4%	4%
Packaging material	3%	0%	6%	2%	0%



Packaging Attributes: Impact on Purchase Intent

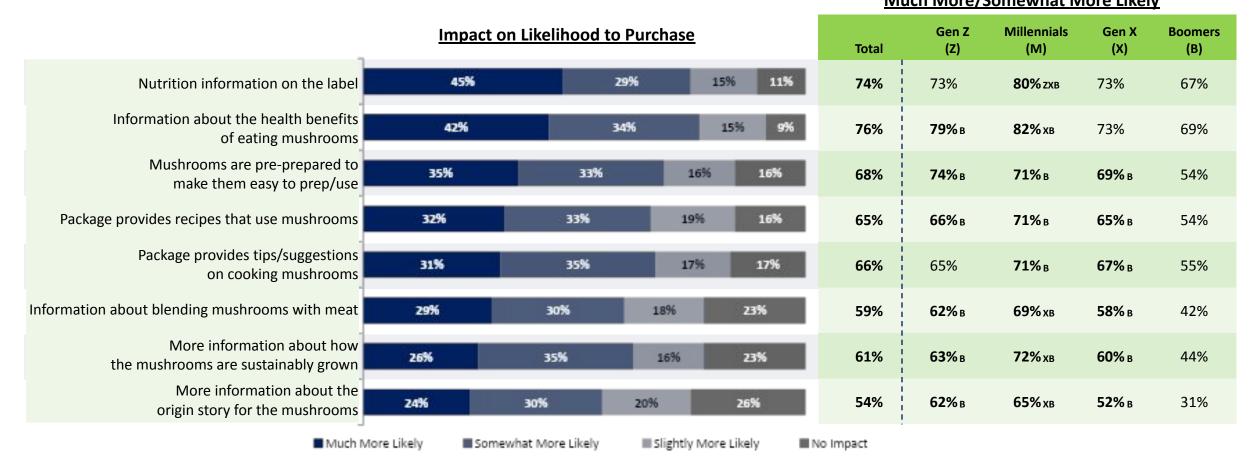
- "Nutrition information" and "Information about Health Benefits" are the most likely packaging attributes to impact purchasing of pre-packaged fresh mushrooms across all consumer groups, consistent with the top performing claims seen in both the packaging and message testing.
- "Mushrooms are Easy to Prep/Use", "Recipes that Use Mushrooms" or "Tips/Suggestions on Cooking Mushrooms" are more impactful to Considerers.
- "Sustainably grown" and the "origin story" are less impactful, but likely appeal to a niche group of consumers.





Packaging Attributes: Impact on Purchase Intent (Cont'd)

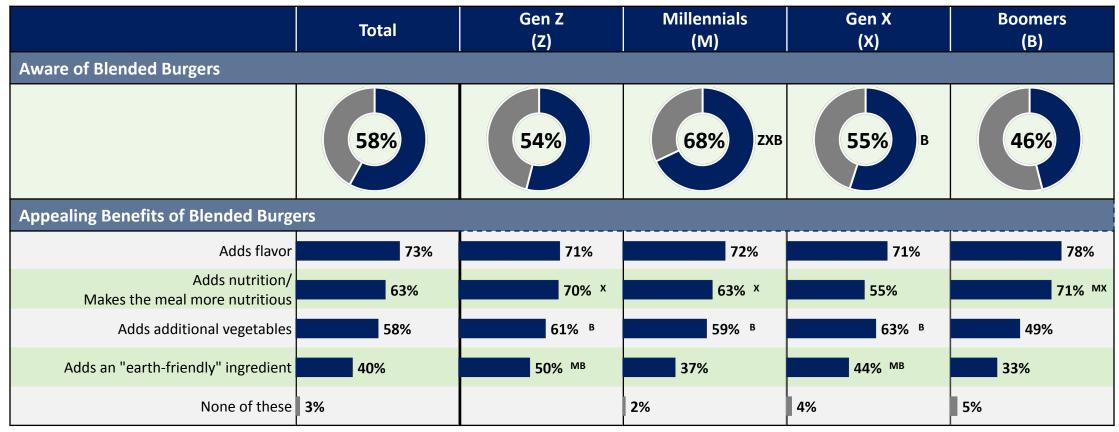
- "Nutrition information" and "Information about Health Benefits" are the most likely packaging attributes to impact purchasing of pre-packaged fresh mushrooms across all generation groups.
- Millennials are more likely than other generations to be swayed by nutrition information on the label.
- Boomers are consistently the <u>least</u> motivated to purchase pre-packaged mushrooms based on blending mushrooms with meat, sustainability information for mushrooms, and origin stories for mushrooms.
 Much More/Somewhat More Likely





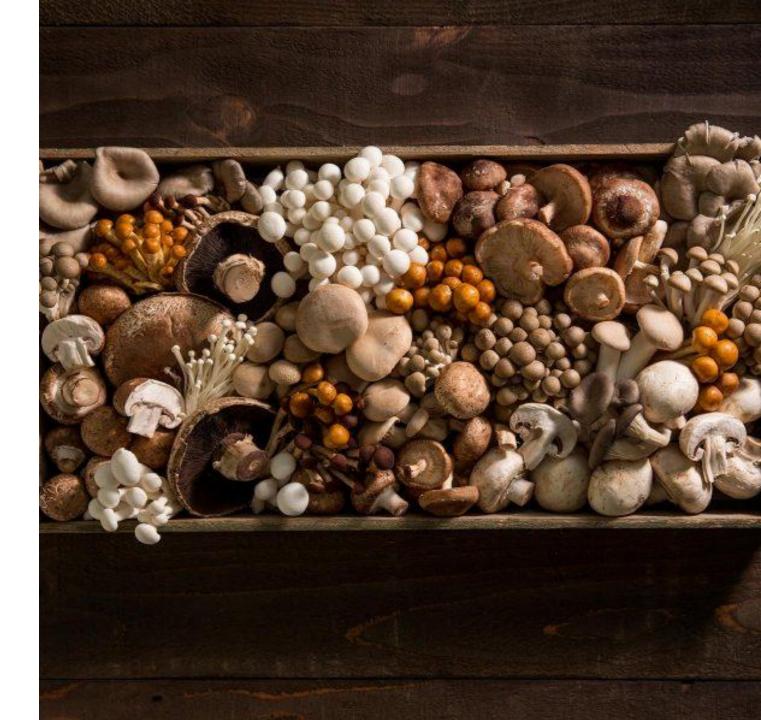
Blended Burger Awareness & Benefits—Generations

- Millennials have significantly higher awareness of blended burgers (68%) than the other generations while less than half of Boomers have heard of blended burgers
- Gen X consumers are less likely to find the "adds nutrition" benefit appealing compared to other generations. "Adds additional vegetables" has less among Boomers.
- Gen Z is most likely to deem "adds an 'earth-friendly' ingredient" an appealing benefit of blended burgers.





Message Optimization





Methodology: Trade-Off Exercise (MAX-DIFF)

A Trade-Off Exercise was used to gauge preference and optimize messaging from 15 proposed statements:

- Mushrooms are the only source of vitamin D in the produce aisle.
- Mushrooms are a good source of B Vitamins, which can help support a healthy immune system.
- The nutrients in mushrooms can help support a healthy immune system.
- Mushrooms are one of the most sustainably produced foods in the U.S.
- Mushrooms: Healthy on the plate, gentle on the planet.
- It takes only 2 gallons of water to produce 1 lb. of mushrooms.
- Blend fresh mushrooms with meat for budget-friendly meals.
- Adds rich and savory flavor to burgers, pastas and stir-frys.
- Mushrooms are easy to add to any meal.
- Mushrooms make meals MORE delicious, nutritious and sustainable.
- Blend finely chopped fresh mushrooms with ground meat for meals that are more delicious, nutritious, and sustainable.
- Mushrooms are nature's hidden treasure: always in season and grown year-round.
- Mushrooms are neither plant nor animal, they are the "Third Food Kingdom."
- Mushrooms are the Answer.
- Mushrooms are a good-mood food.

→ Each consumer was shown 8 screens of 6 statements each in randomized fashion...

Please indicate which statem mushrooms, and which would mushrooms.		
MOST likely to motivate you to PURCHASE		LEAST likely to motivate you to PURCHASE
	Statement 11	
	Statement 2	
	Statement 6	
	Statement 9	
	Statement 14	
	Statement 3	

- → After the Trade-Off Exercise, each statement was evaluated on its purchase impact for fresh mushrooms using a 5-point scale (Much More Likely to Much Less Likely to Purchase). Along with preference, these two metrics determine whether a message meets the Action Standard for recommendation.
- → A TURF analysis was conducted to arrive at recommended bundles of 2 and 3 messages.



Message Recommendation Action Standard

- ✓ A Message Preference (Max-Diff) Index of 120+ (Elite or Top Tier)
- ✓ Above Average Top-Box Purchase Impact Score
- → Including a complementary purchase impact metric ensures that preferred messages perform well independent of the Max-Diff exercise and ensure that recommended messages are not merely "the best of the worst".
- → Combinations of two or more messages together are recommended if they significantly increase the "net reach" beyond that of one message alone.



Key Findings: Message Optimization

- 4 of the 15 messages meet the action standard for stand-alone communications by having both strong preference scores and above average purchase impact:
 - Mushrooms are a good source of B Vitamins, which can help support a healthy immune system.
 - The nutrients in mushrooms can help support a healthy immune system.
 - Mushrooms make meals MORE delicious, nutritious and sustainable.
 - Adds rich and savory flavor to burgers, pastas and stir-frys.
- "Mushrooms are the only source of Vitamin D in the produce aisle" and "Mushroom are easy to add to any meal" have high appeal among consumers and scored higher than the average on preference however these messages did not meet the action standard on preference. These messages should be considered as alternatives if any of the 4 finalists could not be used.
- To optimize reach, messages in communication should include a mix of benefits including nutrition, meal additions, sustainability, or a hybrid message capturing multiple benefits. While not meeting the action standard on its own, mushrooms being "one of the most sustainably produced foods in the U.S." captures a niche segment of consumers and helps optimize the reach of an overall messaging program.
 - ☐ Moreover, this research supports **The Mushroom Council's** main campaign themes of Nutrition, Flavor/Taste and Sustainability, as these themes resonate with consumers and build the most broadly appealing message bundle.
- As with the highest-scoring package designs, results from the separate message testing are mostly consistent by user group and generation, though sustainability-focused messaging is less appealing to Boomers.
- These findings reinforce the importance of telling consumers the "why" or "how" fresh mushrooms are nutritious, sustainable, or make good additions to meals, to give consumers a "reason to believe" the claim.



Messages Tested by Benefit Group

For analysis purposes, messages were grouped into 5 benefit areas:

Nutrition

Mushrooms are the only source of vitamin D in the produce aisle.

Mushrooms are a good source of B Vitamins, which can help support a healthy immune system.

The nutrients in mushrooms can help support a healthy immune system.

Sustainability

Mushrooms are one of the most sustainably produced foods in the U.S.

Mushrooms: Healthy on the plate, gentle on the planet. It takes only 2 gallons of water to produce 1 lb. of mushrooms.

Addition to Meals

Blend fresh mushrooms with meat for budget-friendly meals.

Adds rich and savory flavor to burgers, pastas and stir-frys.

Mushrooms are easy to add to any meal.

Hybrid (Multiple Benefits)

Mushrooms make meals MORE delicious, nutritious and sustainable.

Blend finely chopped fresh mushrooms with ground meat for meals that are more delicious, nutritious, and sustainable.

General Imagery

Mushrooms are nature's hidden treasure: always in season and grown year-round.

Mushrooms are neither plant nor animal, they are the "Third Food Kingdom."

Mushrooms are the Answer.

Mushrooms are a good-mood food.



Message Performance Dashboard

- 4 of the 15 messages meet the action standard, including 2 nutrition-related messages along with a hybrid and meal addition statement.
- The statements including "a healthy immune system" outperformed all others by a notable margin on preference and purchase impact. This theme also resonates with package claims.

	Message Preference (Index 120+)	Purchase Impact (Above Average % Top-Box)	Meets Action Standard
Mushrooms are a good source of B Vitamins, which can help support a healthy immune system.	180	47%	8
The nutrients in mushrooms can help support a healthy immune system.	176	48%	\otimes
Mushrooms make meals MORE delicious, nutritious and sustainable.	158	39%	8
Adds rich and savory flavor to burgers, pastas and stir-frys.	136	37%	\otimes





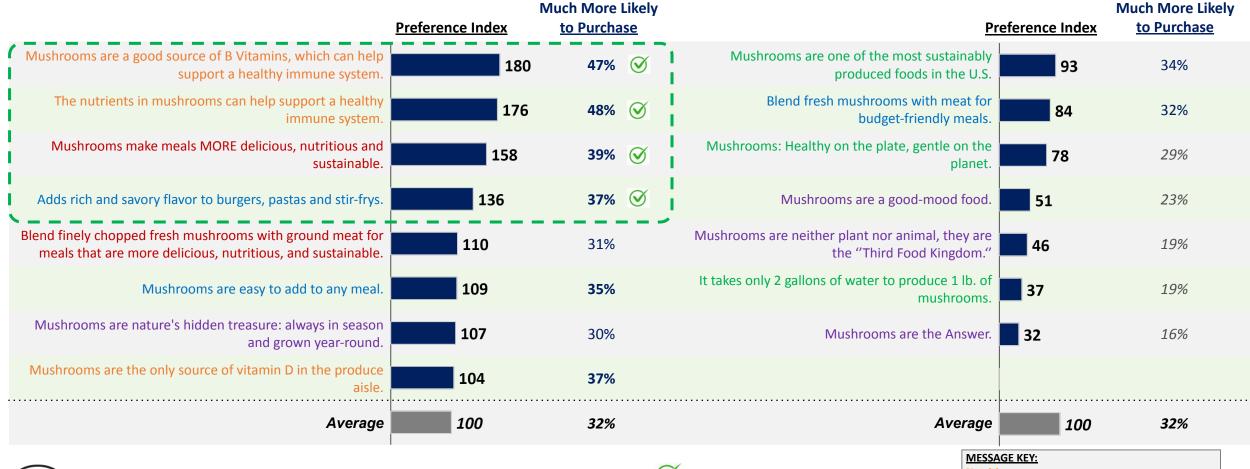
Meets Action Standard (Above Avg.

Top-Box Impact on PI & Message

Preference Index of 120+)

Message Preference and Purchase Impact

- Nutrition callouts in messaging are extremely important, as the top performing claims include information about mushrooms supporting a healthy immune system or being nutritious. Messaging around adding mushrooms to meals or burgers form a second tier of appeal.
- A third nutrition-related message, "... the only source of Vitamin D...," while not meeting the action standard, still performs above average on purchase interest, further reinforcing the impact of "healthy immune system" messaging.
- Most general imagery messaging falls in the bottom tier of preference and purchase impact.



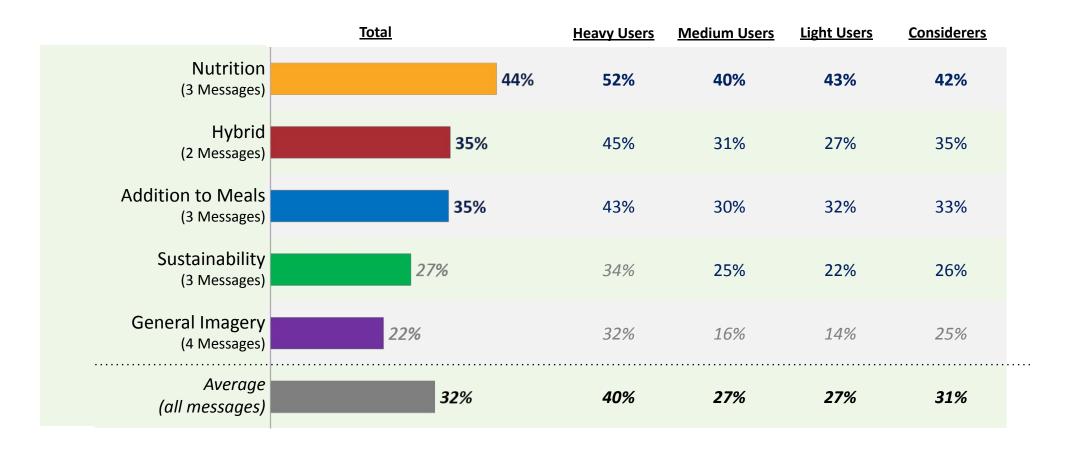


Base: Total (n=700)

Top-Box on 5-pt. purchase interest scale

Purchase Impact by Benefit Group—User Segments

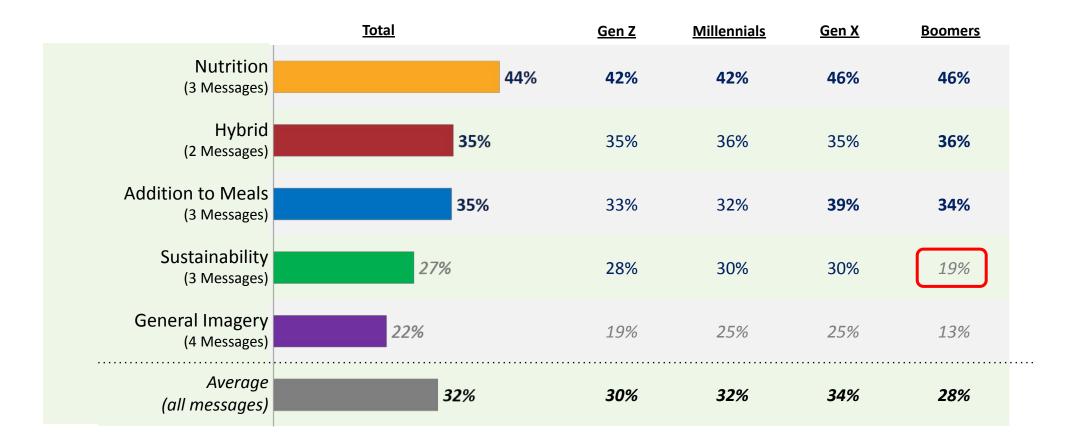
• Nutrition-related benefits are strongly recommended in messaging, particularly the two "healthy immune system" messages. This is supported by significantly higher purchase impact scores across user groups.





Purchase Impact by Benefit Group—Generations

- Nutrition-related benefits perform very well across the age cohorts, further reinforcing their importance in messaging.
- "Addition to Meals" is more appealing to older generations (Gen X/Boomers), while "Sustainability" claims are significantly lower in appeal among Boomers





Bundling Options – Best Two Claim Bundle

- Among the 4 messages that meet the action standard, a 2-message bundle including either of the nutrition statements, along with "Adds rich and savory flavor to burgers, pastas and stir-frys," reaches the most consumers by a slight margin.
- Not including one of the nutrition-related statements results in significantly lower reach, highlighting the importance of messaging healthy immune systems to consumers.

2-Message Bundles		Reach
The nutrients in mushrooms can help support a healthy immune system.	Adds rich and savory flavor to burgers, pastas and stir-frys.	
Mushrooms are a good source of B Vitamins, which can help support a healthy immune system.	Adds rich and savory flavor to burgers, pastas and stir-frys.	
Mushrooms are a good source of B Vitamins, which can help support a healthy immune system.	Mushrooms make meals MORE delicious, nutritious and sustainable.	60.9%
The nutrients in mushrooms can help support a healthy immune system.	Mushrooms make meals MORE delicious, nutritious and sustainable.	
Mushrooms make meals MORE delicious, nutritious and sustainable.	Adds rich and savory flavor to burgers, pastas and stir-frys.	



Maximum Reach (all 15 messages tested) = 82% **MESSAGE KEY:**

Bundling Options – Recommended 3-Claim Bundle

- Adding a 3rd message to the top performing 2-message bundles creates additional appeal and reach among consumers.
- While not meeting the action standard on its own, mushrooms being "one of the most sustainably produced foods in the U.S." appeals to a slightly different, niche segment of consumers and helps optimize the reach of an overall messaging program.

3 Message Bundles	Reach
Mushrooms are a good source of B Vitamins, which can help support a healthy immune system. + Adds rich and savory flavor to burgers, pastas and stir-frys.	60. 9%
If Bundle with: Mushrooms are one of the most sustainably produced foods in the U.S.	67. 3%

3 Message Bundles	Reach
The nutrients in mushrooms can help support a healthy immune system. + Adds rich and savory flavor to burgers, pastas and stir-frys.	60. 9%
If Bundle with: Mushrooms are one of the most sustainably produced foods in the U.S.	67. 0%





Bundling Options – Recommended 3-Claim Bundle

(Cont'd)

- Reach is slightly lower for a 3-message bundle which includes the hybrid message, due to these messages having more overlapping appeal.
- Using the nutrition claim with both the B Vitamins and healthy immune system callouts generates higher reach among consumers.

3 Message Bundles	Reach
Mushrooms are a good source of B Vitamins, which can help support a healthy immune system. + Adds rich and savory flavor to burgers, pastas and stir-frys.	60. 9%
If Bundle with: Mushrooms make meals MORE delicious, nutritious and sustainable.	66. 6%

3 Message Bundles	Reach
The nutrients in mushrooms can help support a healthy immune system. + Adds rich and savory flavor to burgers, pastas and stir-frys.	60. 9%
If Bundle with: Mushrooms make meals MORE delicious, nutritious and sustainable.	65. 3%



Maximum Reach (all 15 messages tested) = 82%

Appendix





Message Preference and Purchase Impact—User Segments

• The message rankings are very similar by user group, with the same top 4 messages meeting the action standard in each case. This offers the advantage of uniformity in messaging to different segments.

	Total		Heavy Users		Medium Users		Light Users		Considerers	
	Preference Index	Purchase Impact								
Mushrooms are a good source of B Vitamins, which can help support a healthy immune system.	180	47% 🧭	172	56% 🧭	184	44% 🧭	195	45% 🧭	175	43% 🧭
The nutrients in mushrooms can help support a healthy immune system.	176	48% 🧭	170	55% 🧭	178	44% 🧭	185	47% 🧭	174	47% 🧭
Mushrooms make meals MORE delicious, nutritious and sustainable.	158	39% 🧭	158	49% 🧭	165	34% 🧭	156	32% 🧭	149	38% 🧭
Adds rich and savory flavor to burgers, pastas and stir-frys.	136	37% 🧭	133	43% 🧭	137	34% 🧭	138	37% 🧭	139	35% 🧭
Blend finely chopped fresh mushrooms with ground meat for meals that are more delicious, nutritious, and sustainable.	110	31%	113	41%	110	28%	101	22%	111	31%
Mushrooms are easy to add to any meal.	109	35%	103	46%	108	31%	119	31%	111	30%
Mushrooms are nature's hidden treasure: always in season and grown year-round.	107	30%	109	39%	106	23%	102	24%	107	32%
Mushrooms are the only source of vitamin D in the produce aisle.	104	37%	105	46%	104	32%	108	36%	101	35%
Average	100	32%	100	40%	100	27%	100	27%	100	31%



= Meets Action Standard (Above Avg.
Top-Box Impact on PI & Message
Preference Index of 120+)
Bold / grey italics = Significantly higher / lower purchase

impact than average at the 90% confidence level

MESSAGE KEY: Nutrition Sustainability Addition to Meals

Message Preference and Purchase Impact—User Segments (continued)

- Messaging around sustainability and general imagery rank lower than the other benefit groups both on preference and purchase impact.
- However, sustainability likely appeals to a niche segment of consumers and is an option if multiple messages are used.

	Tot	al	Heavy Users		Medium Users		Light Users		Considerers	
	Preference Index	Purchase Impact								
Mushrooms are one of the most sustainably produced foods in the U.S.	. ux	34%	91	39%	100	37%	93	27%	84	27%
Blend fresh mushrooms with meat for budget-friendly meals.	84	32%	79	41%	81	26%	: 85	28%	94	34%
Mushrooms: Healthy on the plate, gentle on the planet.	78	29%	76	38%	78	24%	87 :	26%	72	30%
Mushrooms are a good-mood food.	51	23%	56	33%	43	18%	45	14%	60	26%
Mushrooms are neither plant nor animal, they are the "Third Food Kingdom."	46	19%	55	28%	42	12%	38	11%	46	22%
It takes only 2 gallons of water to produce 1 lb. of mushrooms.	37	19%	41	26%	35	15%	27	13%	42	20%
Mushrooms are the Answer.	32	16%	38	27%	29	10%	23	6%	36	21%
Average	100	32%	100	40%	100	27%	100	27%	100	31%



Addition to Meals

Top-Box on 5-pt, purchase interest scale

Message Preference and Purchase Impact—Generations

- The top 4 messages are generally consistent across generations, though "Adds rich and savory flavor to burgers, pastas, and stir-frys" does not meet the action standard among Millennials.
- Compared to other generations, Boomers have a higher relative preference for "Mushrooms are easy to add to any meal."

	Total		Gen Z		Millennials		Gen X		Boomers	
	Preference Index	Purchase Impact								
Mushrooms are a good source of B Vitamins, which can help support a healthy immune system.	180	47% 🧭	177	49% 🧭	173	45% 🧭	179	46% 🧭	196	52% 🧭
The nutrients in mushrooms can help support a healthy immune system.	176	48% 🧭	169	46% 🧭	170	47% 🧭	173	49% 🧭	197	49% 🧭
Mushrooms make meals MORE delicious, nutritious and sustainable.	158	39% 🧭	159	39% 🧭	150	38% 🧭	153	38% 🧭	179	43% 🧭
Adds rich and savory flavor to burgers, pastas and stir-frys.	136	37% 🧭	124	35% 🧭	121	30%	142	43% 🧭	162	42% 🧭
Blend finely chopped fresh mushrooms with ground meat for meals that are more delicious, nutritious, and sustainable.	110	31%	107	30%	117	34%	103	31%	108	29%
Mushrooms are easy to add to any meal.	109	35%	97	30%	98	32%	113	41%	128	34% 🧭
Mushrooms are nature's hidden treasure: always in season and grown year-round.	107	30%	111	27%	98	30%	105	33%	121	24%
Mushrooms are the only source of vitamin D in the produce aisle.	104	37%	114	30%	106	35%	107	44%	91	36%
Average	100	32%	100	30%	100	32%	100	34%	100	28%



= Meets Action Standard (Above Avg.
Top-Box Impact on PI & Message
Preference Index of 120+)
Bold / grey italics = Significantly higher / lower purchase

impact than average at the 90% confidence level

MESSAGE KEY:

Message Preference and Purchase Impact—Generations (continued)

- Messaging around sustainability and general imagery rank lower than the other benefit groups both on preference and purchase impact.
- However, sustainability likely appeals to a niche segment of consumers and performs slightly better on preference for Gen Z consumers.

	Total		Gen Z		Millennials		Gen X		Boomers	
	Preference Index	Purchase Impact								
Mushrooms are one of the most sustainably produced foods in the U.S.	. 93	34%	99	34%	92	36%	93	35%	91	29%
Blend fresh mushrooms with meat for budget-friendly meals.	84	32%	75	33%	92	34%	82	34%	. 76	27%
Mushrooms: Healthy on the plate, gentle on the planet.	78	29%	86	33%	78	28%	77	35%	75	21%
Mushrooms are a good-mood food.	51	23%	53	17%	61	25%	53	29%	28	15%
Mushrooms are neither plant nor animal, they are the "Third Food Kingdom."	46	19%	55	17%	57	25%	47	20%	19	7%
It takes only 2 gallons of water to produce 1 lb. of mushrooms.	37	19%	42	17%	47	26%	36	19%	18	8%
Mushrooms are the Answer.	32	16%	33	16%	40	21%	36	19%	13	4%
Average	100	32%	100	30%	100	32%	100	34%	100	28%

