Clean Label Research Community Behavior Report:
Plant-Based Burgers and Scorecarding
Welcome to the Clean Label Enthusiasts® Monthly Report

The free-from food movement is a multi-billion dollar shift in consumer behavior that is impacting companies within the consumer packaged goods industry. To know how to effectively respond to this movement, InsightsNow has launched a long-term research initiative applying behavioral science to generate insights for faster, more informed clean label decisions. Please read on to find the results of our November 2019 report: A Global Review of the Clean Living Phenomena

Table of Contents

Section 1:
- p. 3: Overview & Study Details
- p. 4: Summary of What We Learned

Section 2:
- p. 5: Behavioral KPI’s : Importance
- p. 6: Behavioral KPIs: Brand Awareness and Brand Trust
- p. 7: Behavioral KPIs: Clean Ingredients and Past Trial
- P. 8: Behavioral KPIs: Nutritive Claims and Statement Simplicity
- p. 9: Behavioral KPIs: Worst Ingredient, Non-GMOs and Smart Ordering

Section 3:
- p. 10: KPs Claim Influence
- p. 11: Implicit/Explicit Test™ Methodology
- p. 12: Prediction Model
- p. 13: Product Scorecard
- p. 14: Individual Prediction Model
- p. 15: About Us
Clean Label Enthusiasts® & Product Scorecarding

Overview:
Clean Label Enthusiasts® (CLE) are a behavioral segment, differentiated by their attitudes and avoidances of products with artificial ingredients and other additives that they believe are unhealthy. They tend to read ingredient labels and avoid brands due to these concerns.

Not only do CLE tend to read labels, they exhibit concern about chemicals and avoid "unhealthy" brands. All CLE shoppers state that clean label concerns impact their shopping choices, versus only 22% of Non-CLE shoppers. 76% state that they avoid buying brands to avoid “bad/unhealthy ingredients” versus 22% of Non-CLE.

Study Details:
In September 2019, we conducted an online survey. This study consisted of 201 Clean Label Enthusiasts® (CLE) who completed a questionnaire that explored their perceptions of ingredients, claims, and brands in the plant-based meat patty category. From this information we determined 9 Behavioral Key Performance Indicators (KPI) that were the most important to CLEs when choosing and evaluating plant based burgers. This methodology was then compiled into a Behavioral Scorecard that can be a strategic tool for Decision Makers of any product based on the category brands, claims and ingredients.
Summary of What We Learned

- Key Performance Indicators can be used to predict choice using a regression model.
- The most important KPI is awareness.
- Brand trust is also an essential KPI when looking at predicting choice.
- Ingredient statements can make or break a product, simpler ingredient statements are key.
- Previous trial of a product or brand definitely is proven to give lift to the product, consumers do not like the unfamiliar or untested.
- Claims resound with consumers, those based around nutrition carry more weight than those that mention GMO’s.
- Clean Label Enthusiasts® do not tolerate some ingredients, and having them in an ingredient statement will certainly prove detrimental to your product.
- If possible, ingredient statements benefit from putting the most favorable (highest Clean Label Score™) ingredients first.
- In the plant-based burger category, there is room for improvement by all companies involved as none have the perfect combination of KPIs that we have defined.
Which Behavioral KPIs Were Most Important?

Regression Model to Predict Ranked Choice from Behavioral KPIs

From these 3 plant-based burger patty products, please select the product that is the MOST APPEALING to you and the product that is the LEAST APPEALING to you.

Please select one response in each column.

<table>
<thead>
<tr>
<th></th>
<th>Most Appealing</th>
<th>Least Appealing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Boca All American Classic Burger</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingredients: Water, Soy Protein Concentrate, Reduced Fat Cheddar Cheese (Pasteurized Part-Skim Milk, Cheese Culture, Salt, Enzymes, Annatto (Color), Vitamin A (Palmitate)), Wheat Gluten, Corn Oil, Yeast Extract, Caramel Color, Modified Cellulose, Salt, Natural Flavor (Non-Meat), Dried Onion, Garlic Powder, Sesame Oil.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gardenburger The Original Veggie Burger</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural ingredients, Lots of Whole Grain, Good Source of Fiber</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Beyond Burger</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Soy, No Gluten, Non-GMO Project Verified, High Protein</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingredients: Water, Pea Protein Isolate, Expeller-Pressed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

While all of the KPIs have a positive relationship with product choice, some proved to be more critical than others in the model.

Importance Weights

<table>
<thead>
<tr>
<th>KPI</th>
<th>Importance Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Awareness</td>
<td>25%</td>
</tr>
<tr>
<td>Brand Trust</td>
<td>20%</td>
</tr>
<tr>
<td>Clean Ingredients</td>
<td>15%</td>
</tr>
<tr>
<td>Past Trial</td>
<td>10%</td>
</tr>
<tr>
<td>Nutritive Claims</td>
<td>5%</td>
</tr>
<tr>
<td>Statement Simplicity</td>
<td>3%</td>
</tr>
<tr>
<td>Worst Ingredient</td>
<td>1%</td>
</tr>
<tr>
<td>Non-GMO Claims</td>
<td>1%</td>
</tr>
<tr>
<td>Smart Ordering</td>
<td>1%</td>
</tr>
</tbody>
</table>
KPIs – Brand Awareness and Brand Trust

Brand Awareness – How many consumers are familiar with your brand? Do previous consumer experiences with and perceptions of your brand encourage or discourage them to try new products from your brand?

Brand Trust – Does your name mean trust? Brand Trust evaluates Clean Label Enthusiasts® trust in your brand to deliver products that support a clean and healthy lifestyle. This measurement uses the Implicit/Explicit test to understand consumer behavioral reactions to the brand.

Only 16% of CLE’s trust food companies “to a great extent.”

Most Trusted
Amy’s 84
Gardenburger 78
Morning Star Farms 76
Beyond Meat 75
BEYOND MEAT 73

Brand Trust

Least Trusted
BOCA 67
LIGHTLIFE 63
IMPOSSIBLE 61
Quorn 57

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KPIs – Clean Ingredients and Past Trial

Determine each ingredients’ clean score. **Clean Ingredients** allowed for the assessment of all 193 ingredients in the product ingredient lists. Each Clean Label Enthusiast® that participated evaluated 50 ingredients.

**Implicit/Explicit Test:**
100 point score measuring how much each ingredient contributes to a Clean Label.

**Past Trial** – How many consumers have tried your product? Do they like it enough to repeat instead of choosing another option?
KPIs – Nutritive Claims and Statement Simplicity

Inform your consumers! **Nutritive Claims** have an influence on your product, call out those things that are important and differentiating.

<table>
<thead>
<tr>
<th>Less Fat</th>
<th>Reduced Fat</th>
<th>No Cholesterol</th>
<th>High Protein</th>
<th>Excellent Source of Protein</th>
<th>Good Source of Fiber</th>
</tr>
</thead>
</table>

Evaluates influence of claims on choice of products

Keep the product simple! **Statement Simplicity** evaluates the length of the ingredient list to ensure Clean Label Enthusiasts® do not view your product as having an excessive number of ingredients. Shorter ingredients lists are more appealing.

Why would consumers want this...

<table>
<thead>
<tr>
<th>Impossible Burger</th>
<th>41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Praeger's All American Veggie Burger</td>
<td>52.2</td>
</tr>
<tr>
<td>The Great Organic Blend Burger</td>
<td>92</td>
</tr>
</tbody>
</table>

...when this is so short and clean!


**Ingredients:** Hydrated Pea Protein (Water, Pea Protein), Avocado Oil, Onions, Sweet Potato Puree, Butternut Squash Puree, Carrot Puree, Natural Flavors, Methylcellulose, Fruit Juice Color, Oat Fiber, Potato Starch, Roasted Garlic, Sea Salt.
KPIs – Worst Ingredient, Non-GMO and Smart Ordering

It only takes one ingredient! **Worst Ingredient** examines how badly your least palatable ingredient will turn off Clean Label Enthusiasts®.

71% of Clean Label Enthusiasts would trade away better taste to avoid even a single chemical sounding ingredient.

Clean Label Enthusiasts won’t tolerate these:

- Methylcellulose 26
- Modified Cellulose 26
- Soy Leghemoglobin 24
- Succinic Acid 23
- Disodium Guanylate 19
- Disodium Inosinate 19

Address Non-GMO concerns! **Non-GMO** claims are considered to have some of the most influence of all potential claims for products.

**No GMOs**
**Non-GMO**
**Non-GMO Project Verified**
**Non-GMO Soy**

80 - 100 points (0-100 per SKU)

Put your best foot forward! **Smart Ordering** measures whether the first impression Clean Label Enthusiasts have when reading your product’s ingredients list is positive by beginning with popular ingredients that receive higher clean label scores.

Don’t show consumers this....

....excite them with this!!

Organic Carrots 94
Sugar 41
Succinic Acid 23
Glycerin 31
Canola Oil 61
Cornstarch 61
Salt 63
Whey 62
Garlic 93
Black Pepper 92

Organic Carrots 94
Garlic 93
Black Pepper 92
Salt 63
Whey 62
Canola Oil 61
Cornstarch 61
Sugar 41
Succinic Acid 23
Glycerin 31
In order to measure CLE consumers' reactions to various ingredients in plant-based burger patties, we conducted an Implicit/Explicit Test™. Participants were shown a list of ingredients, one at time, and asked to select "OK" or "Avoid" as quickly as possible. The ingredients were taken from current ingredient lists within the plant-based burgers category. Each participant evaluated 50 ingredients out of the 193 total ingredients in the products we tested. Their choice and reaction time were used to calculate a clean label score for each ingredient. Higher clean label scores indicate that participants were more likely to implicitly accept an ingredient, while lower clean label scores indicate that they were more likely to implicitly reject an ingredient.

**Indicators of Behavior**
**Measuring System 1 and 2 Modes of Thinking**

**SYSTEM ONE**
- Implicit
  - Fast
  - Unconscious
  - Automatic
  - Everyday Decisions

**SYSTEM TWO**
- Explicit
  - Slow
  - Conscious
  - Effortful
  - Complex Decisions
KPIs – Claims Influence

<table>
<thead>
<tr>
<th>Claim</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO ARTIFICIAL FLAVORS</td>
<td>83.2</td>
</tr>
<tr>
<td>USDA ORGANIC</td>
<td>82.2</td>
</tr>
<tr>
<td>NATURAL INGREDIENTS</td>
<td>82.1</td>
</tr>
<tr>
<td>NO GMOS</td>
<td>81.5</td>
</tr>
<tr>
<td>NO ANTIBIOTICS</td>
<td>81.2</td>
</tr>
<tr>
<td>NON-GMO</td>
<td>80.5</td>
</tr>
<tr>
<td>HIGH PROTEIN</td>
<td>80.5</td>
</tr>
<tr>
<td>EXCELLENT SOURCE OF...</td>
<td>76.6</td>
</tr>
<tr>
<td>GOOD SOURCE OF FIBER</td>
<td>76.6</td>
</tr>
<tr>
<td>100% GRASS FED</td>
<td>76.5</td>
</tr>
<tr>
<td>NON-GMO PROJECT VERIFIED</td>
<td>73.9</td>
</tr>
<tr>
<td>MADE WITH AVOCADO OIL</td>
<td>73.8</td>
</tr>
<tr>
<td>LOTS OF WHOLE GRAIN</td>
<td>69.4</td>
</tr>
<tr>
<td>LESS FAT</td>
<td>69.4</td>
</tr>
<tr>
<td>NO CHOLESTEROL</td>
<td>67.9</td>
</tr>
<tr>
<td>NON-GMO SOY</td>
<td>67.7</td>
</tr>
<tr>
<td>SOY FREE</td>
<td>65.2</td>
</tr>
<tr>
<td>REDUCED FAT</td>
<td>64.6</td>
</tr>
<tr>
<td>READY TO EAT</td>
<td>64.1</td>
</tr>
<tr>
<td>DAIRY FREE</td>
<td>62.2</td>
</tr>
<tr>
<td>NO SOY</td>
<td>62.1</td>
</tr>
<tr>
<td>NO GLUTEN</td>
<td>59.8</td>
</tr>
<tr>
<td>GLUTEN FREE</td>
<td>59.2</td>
</tr>
<tr>
<td>REDUCED CALORIE</td>
<td>57.7</td>
</tr>
<tr>
<td>QUICK PREP</td>
<td>57.3</td>
</tr>
<tr>
<td>KOSHER</td>
<td>52.7</td>
</tr>
<tr>
<td>WHOLE30 APPROVED</td>
<td>49.5</td>
</tr>
<tr>
<td>HAND FORMED</td>
<td>46.6</td>
</tr>
</tbody>
</table>

- Using an implicit association test, all participants evaluated each of the following 29 claims used across the category SKUs in the study.
- Each claim received an implicit score.
Using the prediction model from Behavior KPIs and plotting against what was observed, a linear relationship emerges.
Plant-Based Burger Category Product Scorecard

All American Veggie Burger

**Ingredient Scores**
- Textured Soy Protein: 45
- Organic Soy Fiber: 62
- Organic Onions: 83
- Wheat Gluten: 47
- Filtered Water: 91
- Organic Mushrooms: 79
- Organic Bulgur Wheat: 67
- Organic Walnuts: 83
- Organic Oats: 91
- Organic Celery: 89
- Organic Carrots: 94
- Organic Bell Peppers: 88
- Sea Salt: 86
- Expeller Pressed Safflower Oil: 58
- Organic Sweet Rice Flour: 74
- Organic Potatoes: 84
- Spices: 95
- Organic Tomato Puree: 82
- Organic Garlic: 85
- Organic Cane Sugar: 63
- Organic Apple Cider Vinegar: 80
- Organic Blackstrap Molasses: 65
- Stoneground Mustard: 76
- Grain Vinegar: 72
- Water: 88
- Ground Mustard Seeds: 87
- Spices: 63
- Hickory Smoke Flavor: 58
- Black Pepper: 92
- Clove Oil: 73

**KPI Scores**
Brand Awareness: 84.3

Smart Ordering: 75.6

Non-GMO Claims: 90.0

Clean Ingredients: 77.6

Past Trial: 27.4

Worst Ingredient: 0.0

Statement Simplicity: 29.5

Nutritive Claims: 45.8

Individual Prediction Models - Ranked Choice

- 9% Rank Choice Explained from Awareness and Trial
- Amy’s, Impossible, Beyond Meat the Most lift from Awareness
- 85% Additional Variation from other Behavioral KPIs

Impossible must improve brand trust

All SKUS can improve by evolving to a cleaner, simpler label
About Us

InsightsNow and the Clean Label Enthusiasts® Community

InsightsNow has a special focus on behavioral marketing research. While we work with a whole spectrum of product types, we especially want to help guide companies trying to engage consumers with healthy living products and practices. Our clients create strategies based on deeper, actionable insights from engaging our custom CLE community and unique behavioral frameworks for interpreting consumer responses.

Clients benefit from work with InsightsNow’s community of Clean Label Enthusiasts by gaining new insights on CLE’s attitudes, behaviors, or ingredients they avoid. These consumers place a high priority on aligning their purchases with values of personal and planetary health. They are especially aware of ingredients and conscientiously read labels. Thus, companies can better design product attributes that engage or reduce aversion in this consumer segment.

We want to partner with clients in optimizing innovation and marketing so they can meet their customer’s needs with the best product for their category and authenticity in their messaging.

Please contact us for more information about this study or to inquire about future research.

Thank you,
David Lundahl, Ph.D.
CEO, InsightsNow Inc.

Email us at info@insightsnow.com